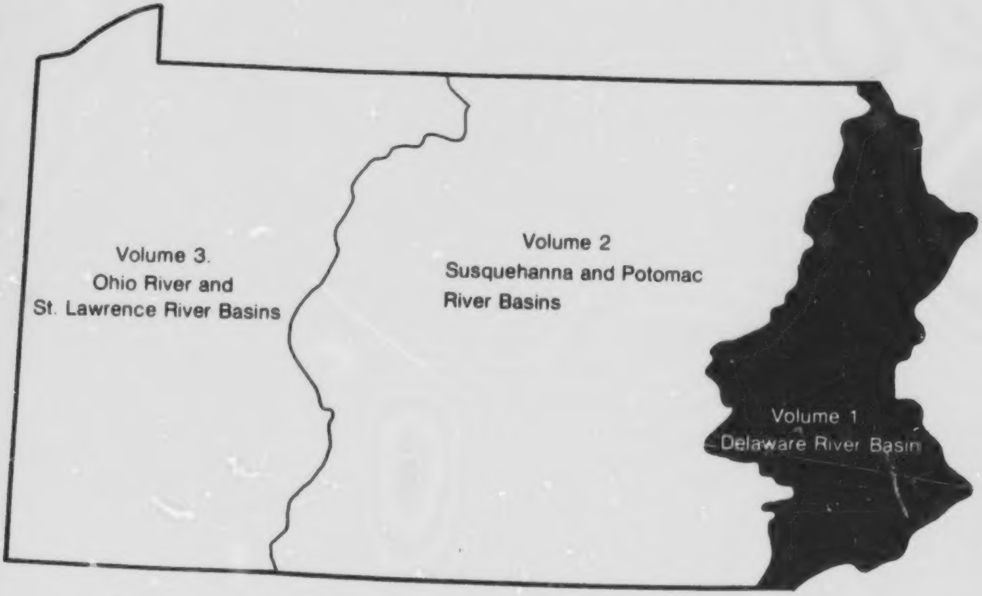
Water Resources Data
Pennsylvania
Water Year 1984

COMPLETED
273.
ORIGINAL

Volume 1. Delaware River Basin


Volume 3.
Ohio River and
St. Lawrence River Basins
Volume 2
Susquehanna and Potomac
River Basins
Volume 1
Delaware River Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT PA-84-1
Prepared in cooperation with the Pennsylvania Department of Environmental Resources, the Philadelphia Water Department and with other State, municipal, and Federal agencies

CALENDAR FOR WATER YEAR 1984

1983

OCTOBER

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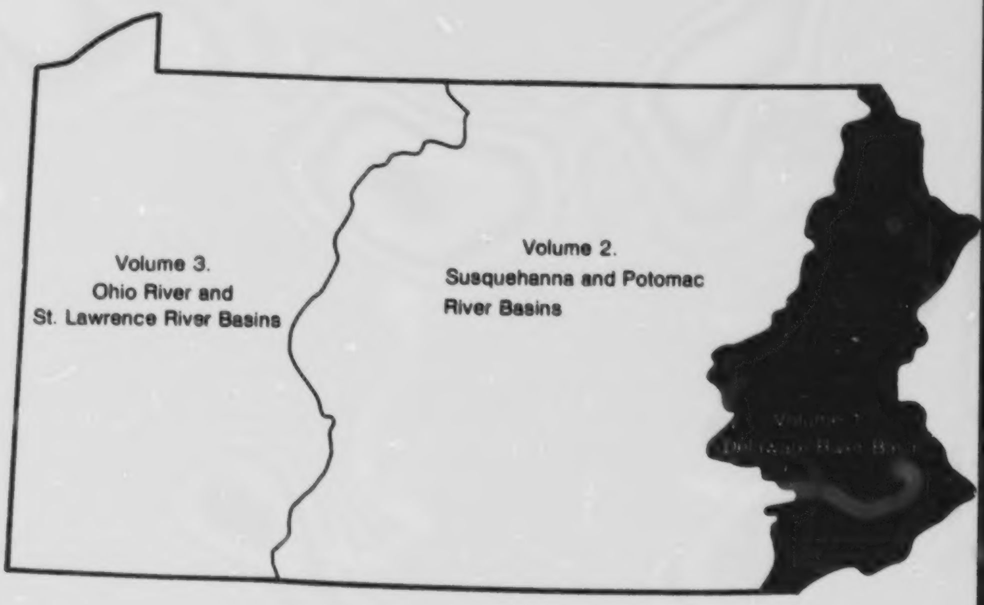
U.S. DEPARTMENT OF THE INTERIOR
March 3 1849

Water Resources Data Pennsylvania Water Year 1984

Volume 1. Delaware River Basin

by J.R. Kolva, T.E. White, R.L. Druther, and P. Moleski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Delaware River Basin

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I

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD P. HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to
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U.S. Geological Survey
P.O. Box 1107
Harrisburg, Pennsylvania 17108-1107
1985

PREFACE

This volume of the annual hydrologic data report of Pennsylvania is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface-and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Pennsylvania are contained in 3 volumes:

Volume 1. Delaware River Basin
Volume 2. Susquehanna and Potomac River Basins
Volume 3. Ohio and St. Lawrence River Basins

Volume 1 was prepared in cooperation with the Commonwealth of Pennsylvania and the other agencies under the general supervision of David E. Click, District Chief, Pennsylvania District, and Charles R. Wood, Subdistrict Chief, Malvern Subdistrict. It is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

Delores Speight
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Water resources data for the 1984 water year for Pennsylvania consist of records of discharge and water quality of streams; elevation and contents of lakes and reservoirs; and elevation of tides; and water levels of ground-water wells. This volume contains records for water discharge at 68 gaging stations; elevation and contents at 12 lakes and reservoirs; elevation of tides at 3 gaging stations; water quality at 33 gaging stations; and water levels at 17 observation wells. Also included are data for 33 crest-stage, 53 low-flow, and 42 water-quality partial-record stations. Location of these sites are shown on figures 6 through 9. Additional water data were collected at various sites not involved in the sysyematic data-collection program and are published as miscellaneous measurements and analyses. These data together with the data in Volume 2 and 3 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating state, local and federal agencies in Pennsylvania.

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GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

(Letter after station name designates types of data: (d) discharge, (c) chemical, (b) biological, (t) water temperature, (e) elevation, gage height, or contents, (s) sediment)

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INTRODUCTION

Water resources data for the 1984 water year for Pennsylvania consist of records of discharge and water quality of streams; elevation and contents of lakes and reservoirs; elevation of tides; and water levels of ground-water wells. This volume contains records for water discharge at 68 gaging stations; elevation and contents at 12 lakes and reservoirs; elevation of tides at 3 gaging stations; water quality at 33 gaging stations; and water levels at 17 observation wells. Also included are data for 33 crest-stage, 53 low-flow, and 42 water-quality partial-record stations. Locations of these sites are shown on figures 6 through 9. Additional water data were collected at various sites not involved in the systematic data-collection program and are published as miscellaneous measurements and analyses. These data together with the data in Volumes 2 and 3 represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State, local, and Federal agencies in Pennsylvania.

Records of discharge and stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperature, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from the Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, Virginia 22202.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report PA-83-1." These water-data reports are for sale, in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (717) 782-3851.

COOPERATION

The U.S. Geological Survey and organizations of the Commonwealth of Pennsylvania have had cooperative agreements for the systematic collection of surface-water records during the periods 1919-21 and 1931 to date, water-quality records from 1944 to date, and ground-water records from 1925 to date. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

State Department of Environmental Resources, P.S. Duncan, Secretary, through the following: Office of Resources Management, R.T. Weston, Acting Deputy Secretary; Bureau of Soil and Water Conservation, P.O. Swartz, Director; Office of Environmental Protection and Regulation, W.B. Middendorf, Deputy Secretary; Bureau of Topographic and Geologic Survey, A.A. Socolow, State Geologist.

Delaware River Basin Commission, G.M. Hansler, Executive Director.

Chester County Water Resources Authority, D.C. Yaeck, Executive Director.

City of Bethlehem, P.M. Marcincin, Mayor.

City of Philadelphia, Water Department, W.J. Marrazzo, Water Commissioner.

Warminster Municipal Authority, Joseph Butch, General Manager.

Assistance in the form of funds or services was given by Corps of Engineers, U.S. Army, in collecting records for 62 gaging stations. Assistance was also furnished by the National Weather Service, NOAA, U.S. Department of Commerce.

The following organizations aided in collecting records:

Palmer Water Co.; Pennsylvania Power and Light Co.; Philadelphia Electric Co.; Philadelphia Surburban Water Co.; New Jersey Zinc Co.; Panther Valley Water Co.; Borough of Tamaqua; Womelsdorf-Robesonia Joint Water Authority; and the City of Coatesville.

SUMMARY OF HYDROLOGIC CONDITIONS

Precipitation for the 1984 water year was about 18 inches above the 1951-80 normal for the Delaware River basin. Figure 1 compares the 1984 monthly precipitation with the 1951-80 monthly mean precipitation recorded at Allentown, Pennsylvania. Rainfall was about 6.9 inches above normal during the first half of the water year, and about 11.0 inches above normal during the second half of the year, with rainfall in May about 300 percent of normal, and the period of April through August about 200 percent above normal.

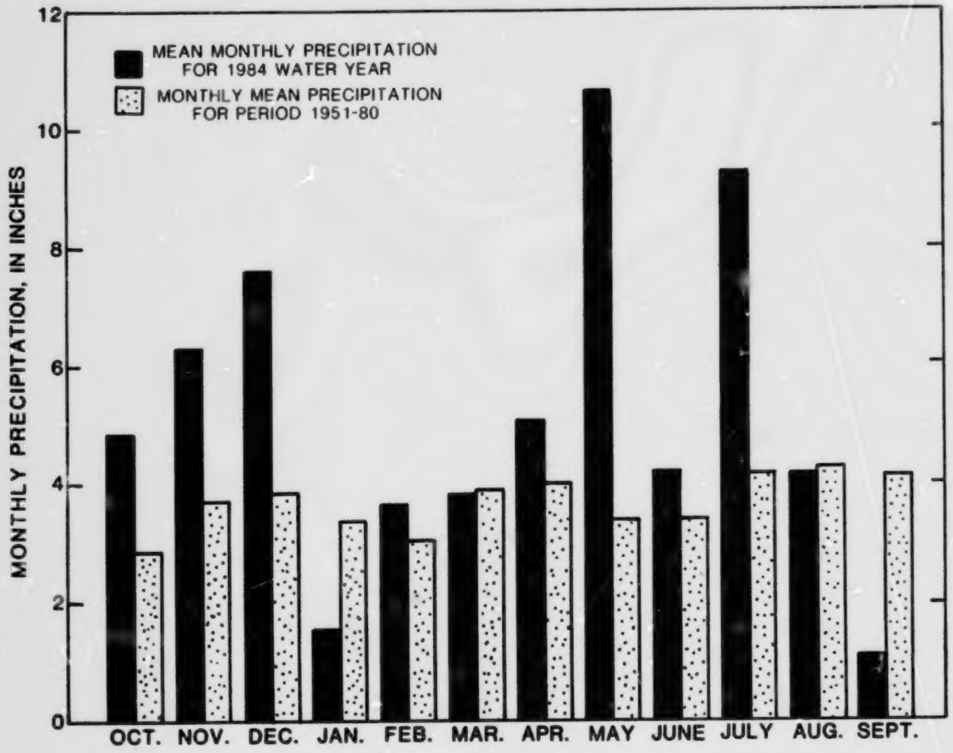


Figure 1.--Comparison of precipitation in the Delaware River basin above Allentown, PA during the 1984 water year with mean precipitation for 1951-80.

Streamflow for the Delaware River basin was above normal during the 1984 water year. Figure 2 compares the 1984 monthly and yearly mean discharges with the median discharges for 1951-80 at two representative gaging stations. The yearly mean discharge was 76 percent above the 1951-80 median at Schuylkill River at Pottstown, and 26 percent above the median at Bush Kill at Shoemakers.

Monthly mean discharges at Schuylkill River at Pottstown were normal during October, January, March and September. Monthly mean discharges for the period of November and December, February, and April through August were above normal. Flows for December were 344 percent of normal, and were the highest ever recorded at the gage for that month. Flows for July were 441 percent of normal, and were the highest ever recorded at the gage for that month.

Monthly mean discharges at Bush Kill at Shoemakers were below normal during October, March and September. Flows in November and January were near normal. Flows in December, February and April through August were all above normal. The July discharge was over 400 percent of normal. The September discharge was only 39 percent of normal.

Storage in seven major reservoirs during the 1984 water year was average except for Francis E. Walter Reservoir, which was about sixteen percent above normal. Annual minimum for Prompton Reservoir exceeded those for the 10-year period 1971-80.

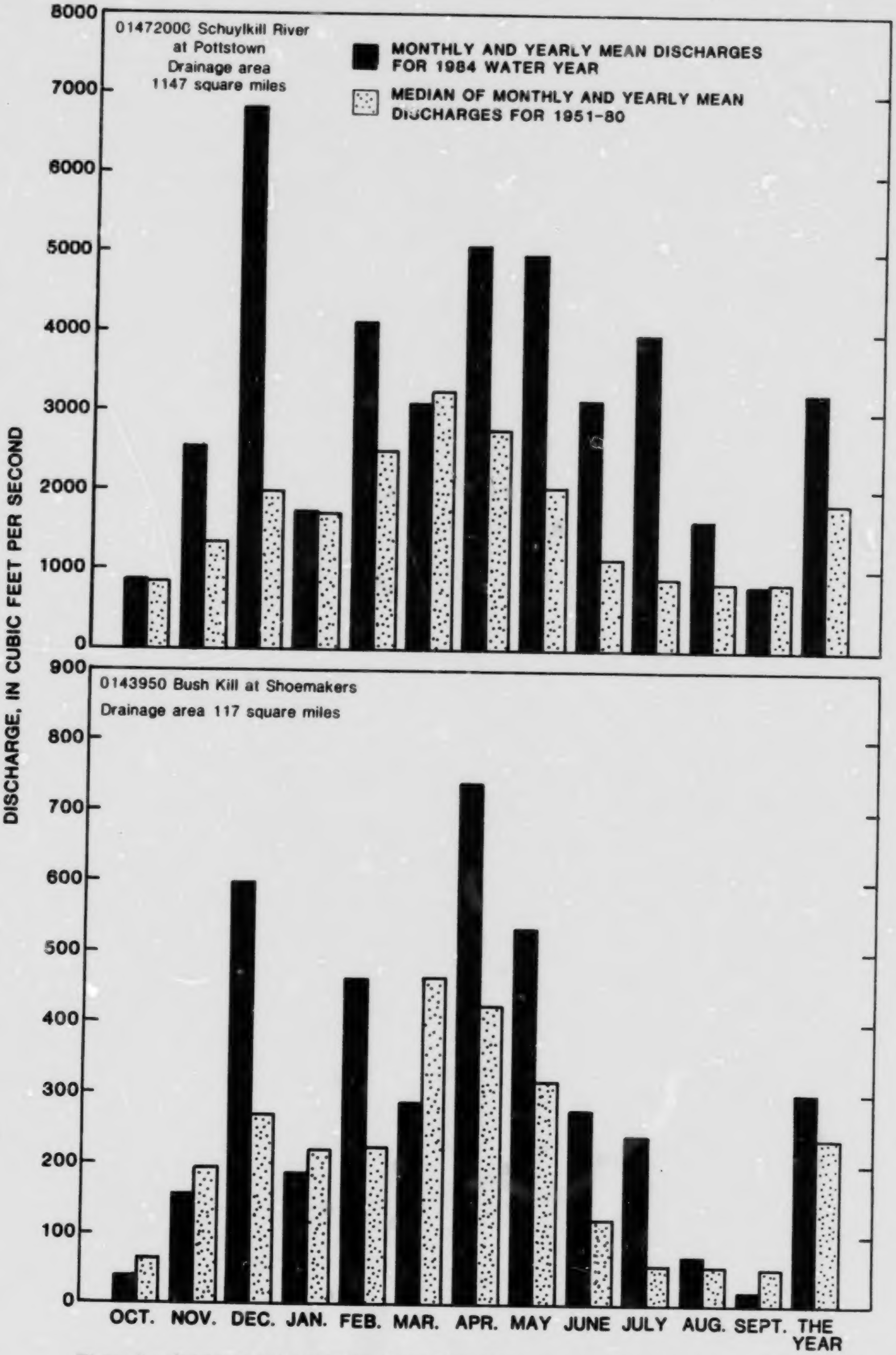
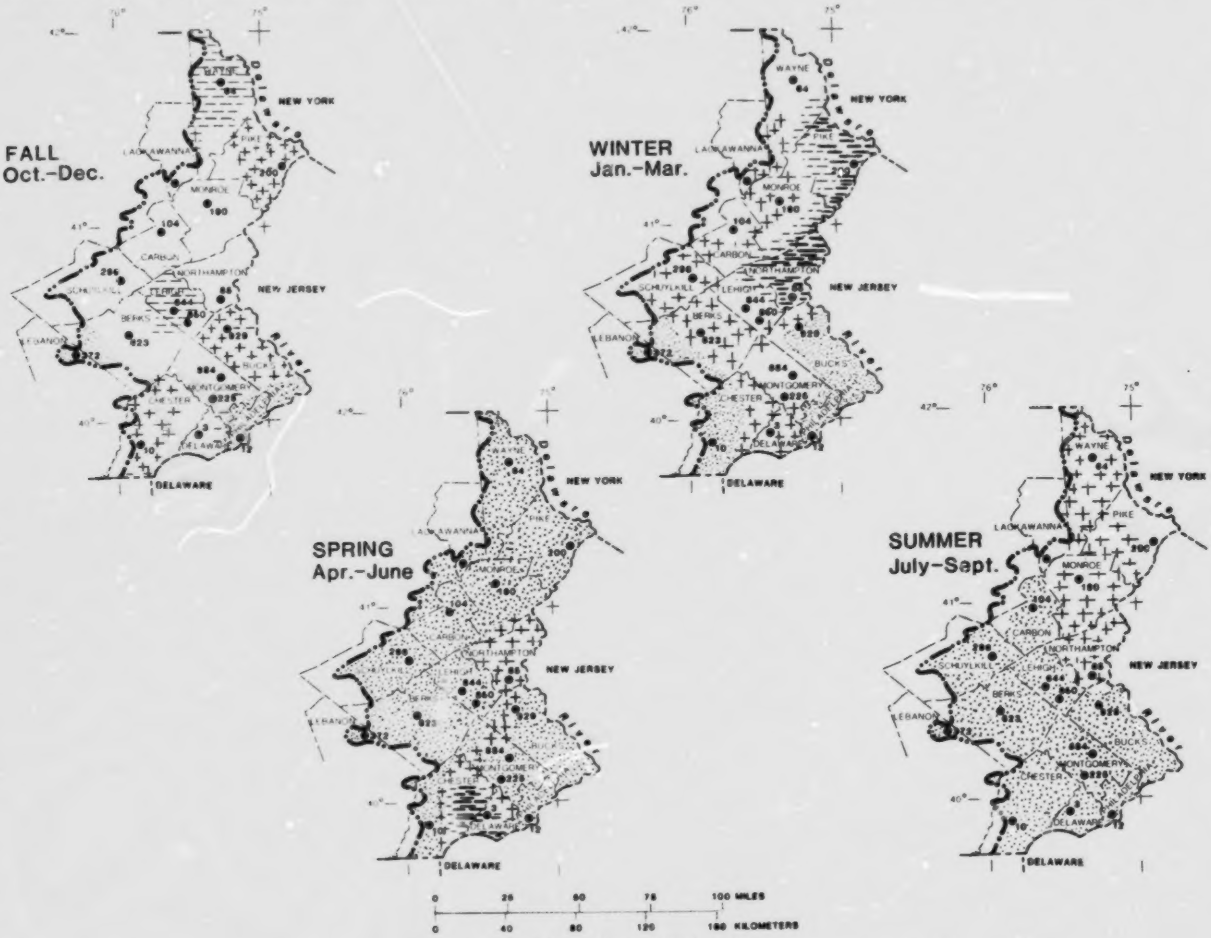


Figure 2.--Comparison of discharge at two long-term representative gaging stations during the 1984 water year with the median discharge for 1951-80.

Ground-water levels, which were normal to above normal throughout much of the Delaware River basin during the 1983 water year, were generally above normal during the 1984 water year. However, water levels varied substantially throughout the basin due to an uneven distribution of precipitation. Seasonal mean water levels in 16 observation wells relative to long-term seasonal mean levels are shown in figure 3. Long-term mean water levels were calculated from records ranging from 3 to 34 years in length.

During the fall, water levels were generally normal or below normal in all but the southern part of the basin and Pike County, where levels were normal to much above normal. Recharge during late fall and early winter produced gradual recovery and by winter, above normal water levels prevailed in the western and southern part of the basin. Below normal to much below normal water levels predominated in the northwestern part of the basin. By spring, water levels were normal to much normal throughout the entire basin, except the extreme southern part. Summertime water levels were normal to much above normal. Levels in the southern part of the basin were generally much above normal and levels in the northern part of the basin, were generally normal to above normal.


FALL
Oct.-Dec.
WINTER
Jan.-Mar.
SPRING
Apr.-June
SUMMER
July-Sept.
NEW YORK
NEW JERSEY
DELAWARE
WAYNE
PIKE
LACKAWANNA
MONROE
CARBON
NORTHAMPTON
SCHUYLKILL
LEHIGH
BERKS
LEBANON
BUCKS
MONTGOMERY
CHESTER
DELAWARE
PHILADELPHIA
42°
41°
40°
76°
75°
0 25 50 75 100 MILES
0 40 80 120 160 KILOMETERS

EXPLANATION

GROUND-WATER LEVELS

▤ MUCH BELOW NORMAL--More than one standard deviation below long-term mean water level.

▤ BELOW NORMAL--One-half to one standard deviation below long-term mean water level.

☐ NORMAL--Within one-half standard deviation of long-term mean water level.

▨ ABOVE NORMAL--One-half to one standard deviation above long-term mean water level.

▨ MUCH ABOVE NORMAL--More than one standard deviation above long-term mean water level.

Figure 3.--Relationship between mean 1984 seasonal water levels and long-term mean water levels.

Data collected at the NASQAN (National Stream Quality Accounting Network) station, Schuylkill River at Philadelphia, showed the suspended-sediment concentrations to be higher on the average than measured in 1980, 1981 and 1983. No data were collected for the period January 6 to July 7 of the 1982 water year, so no comparison was made with the 1982 water year. Dissolved solid concentrations were highest during the months of January and September. Figure 4 compares the suspended-sediment discharge collected during the 1984 water year with the median suspended-sediment discharge for 1951-80. The yearly mean suspended-sediment discharge for 1984 was 64 percent higher than the yearly median for the 1951-80 period.

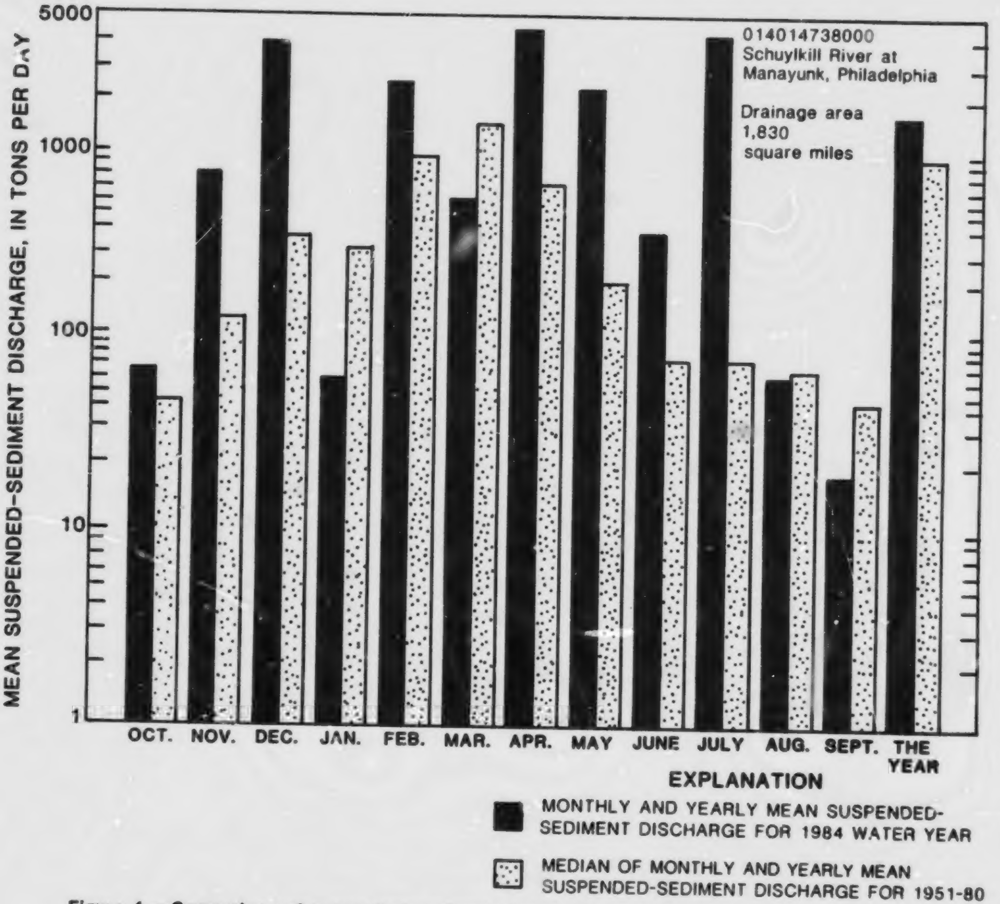


Figure 4.--Comparison of suspended-sediment discharge during the 1984 water year with median suspended-sediment discharge for 1951-80.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting Inch-pound units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for baterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines of feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are charaterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quanity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of Zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents th total organic matter, ash and sediment in the sample. Dry mass values sre expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The prganic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are muticelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/S, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 mm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (ug/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organisms count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	0.00024 - 0.004	Sedimentation.
Silt	0.004 - 0.062	Sedimentation.
Sand	0.062 - 2.0	Sedimentation or sieve.
Gravel	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population sample or population, in terms of types, numbers, mass or volume.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{1} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that orginiates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in the solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 mm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 mm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total". (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

WDR is used as an abbreviation for "Water Data Report" in the REVISED RECORDS paragraph to refer to State annual basic-data reports.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 03041000, which appears just to the left of the station name, includes the 2-digit part number "03" plus the 6-digit downstream order number "041000."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and some miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote the degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites with a 1-second grid. See figure 5 below.

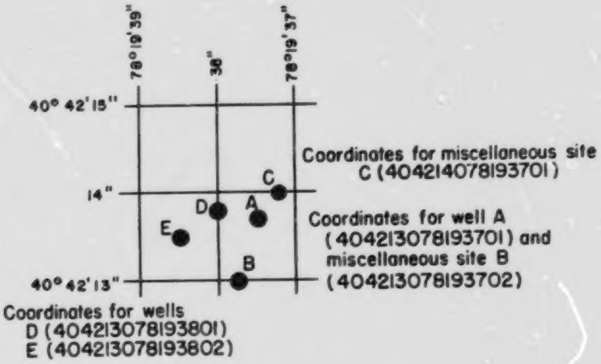


Figure 5.--System for numbering wells and miscellaneous sites (latitude and longitude).

A local well number is also assigned to the wells and consists of a 2-letter abbreviation of the county in which the well is located and a sequential number assigned at the time the well was scheduled.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data-collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence to tritium in the Nation's surface waters. In addition to the surface-water station in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurement of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard textbooks, in Water Supply Papers 888, and 2175, Volumes 1 and 2 in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents.

This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to september 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 6.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with "EXTREMES FOR THE CURRENT YEAR"; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following "EXTREMES," for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used for computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good," within 10 percent; and "fair," within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/3; to tenths between 1.0 and 10 ft^3/3; to whole numbers between 10 and 1,000 ft^3/s and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface-water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

Frequency-of-Sampling Notation

The categories of data given in the "PERIOD OF RECORD" paragraph are followed by the water year(s) for data which was collected at New York gaging stations. The amount of data available is specified by the following letter codes:

(a) 1 or 2 samples per year.
(b) 3 to 5 samples per year.
(c) 6 to 9 samples per year.
(d) 10 to 20 samples per year.
(e) more than 20 samples per year.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges. At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended-sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longtitude and (2) a local number that is provided for local needs. See figure 5.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. The altitude of the land-surface datum above National Geodetic Vertical Datum and the height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported daily.

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's district offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to: Chief Hydrologist, U.S. Geological Survey, 437 National Center, Reston, Virginia 22092.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-seven manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

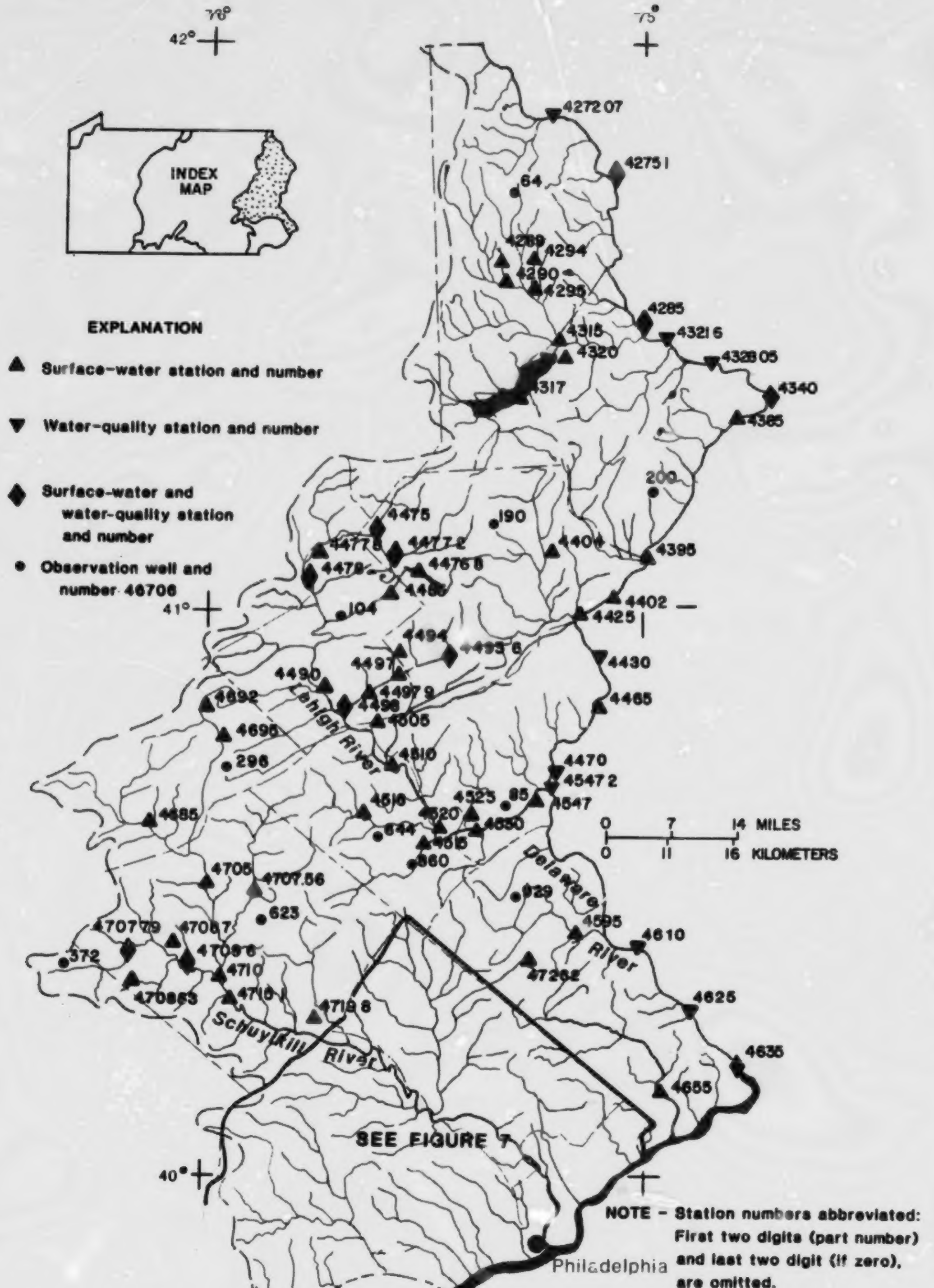
7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.


78°
75°
42°
41°
40°
INDEX MAP
EXPLANATION
▲ Surface-water station and number
▼ Water-quality station and number
◆ Surface-water and water-quality station and number
● Observation well and number 46706
427207
42751
64
4289
4294
4290
4295
4285
4315
43216
4320
432805
4317
4340
4365
200
190
4475
44778
44772
44768
4478
4485
104
4404
4395
4402
4425
4494
44936
4497
4430
4490
44979
4496
4465
4692
4505
4695
Lehigh River
296
4510
4470
45472
85
4525
4547
4516
4520
4530
4685
644
4515
660
0 7 14 MILES
0 11 16 KILOMETERS
4705
4707.56
Delaware River
929
623
470779
47087
47086
4595
4610
372
4710
47262
470853
47151
47198
4625
Schuylkill River
4635
4655
SEE FIGURE 7
Philadelphia

NOTE – Station numbers abbreviated:
First two digits (part number)
and last two digit (if zero),
are omitted.

EXAMPLE – Station number 01470500 shown as 4705
Station number 01472620 shown as 47262

Figure 6.--Location of data-collection stations.

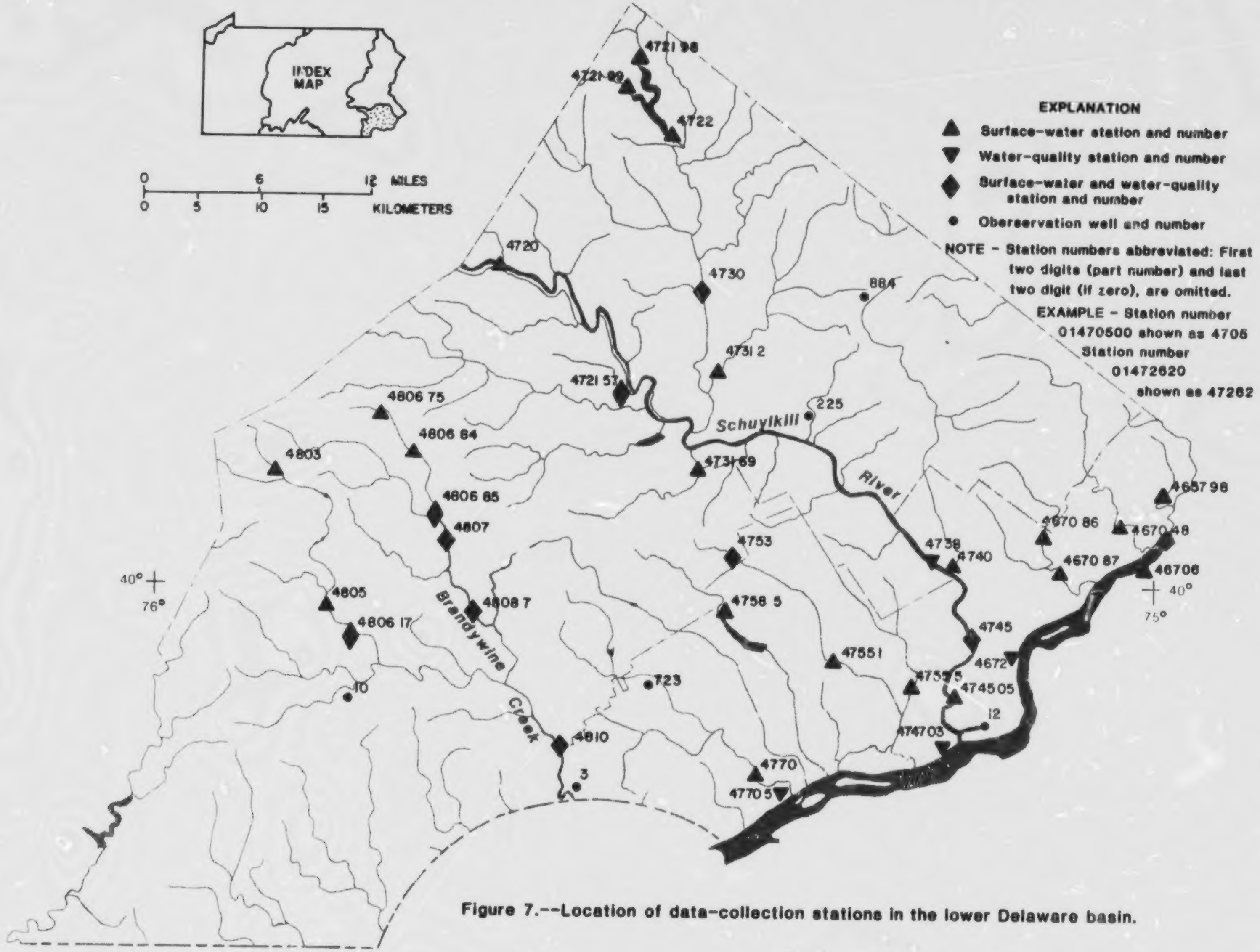

INDEX MAP
0 6 12 MILES
0 5 10 15 KILOMETERS
EXPLANATION
▲ Surface-water station and number
▼ Water-quality station and number
◆ Surface-water and water-quality station and number
● Oberservation well and number
NOTE - Station numbers abbreviated: First two digits (part number) and last two digit (if zero), are omitted.
EXAMPLE - Station number 01470500 shown as 4705
Station number 01472620 shown as 47262
4721 98
4721 99
4722
4720
4730
884
4731 2
4721 57
225
Schuylkill
River
4806 75
4806 84
4803
4731 69
4806 85
4807
4753
4738
4740
4670 86
4670 87
4657 98
4670 48
46706
40°
76°
75°
4805
4806 17
4808 7
4756 5
Brandywine
Creek
4745
4672
4755 1
4755 5
4745 05
10
723
12
474703
4810
4770
4770 5
3

Figure 7.--Location of data-collection stations in the lower Delaware basin.

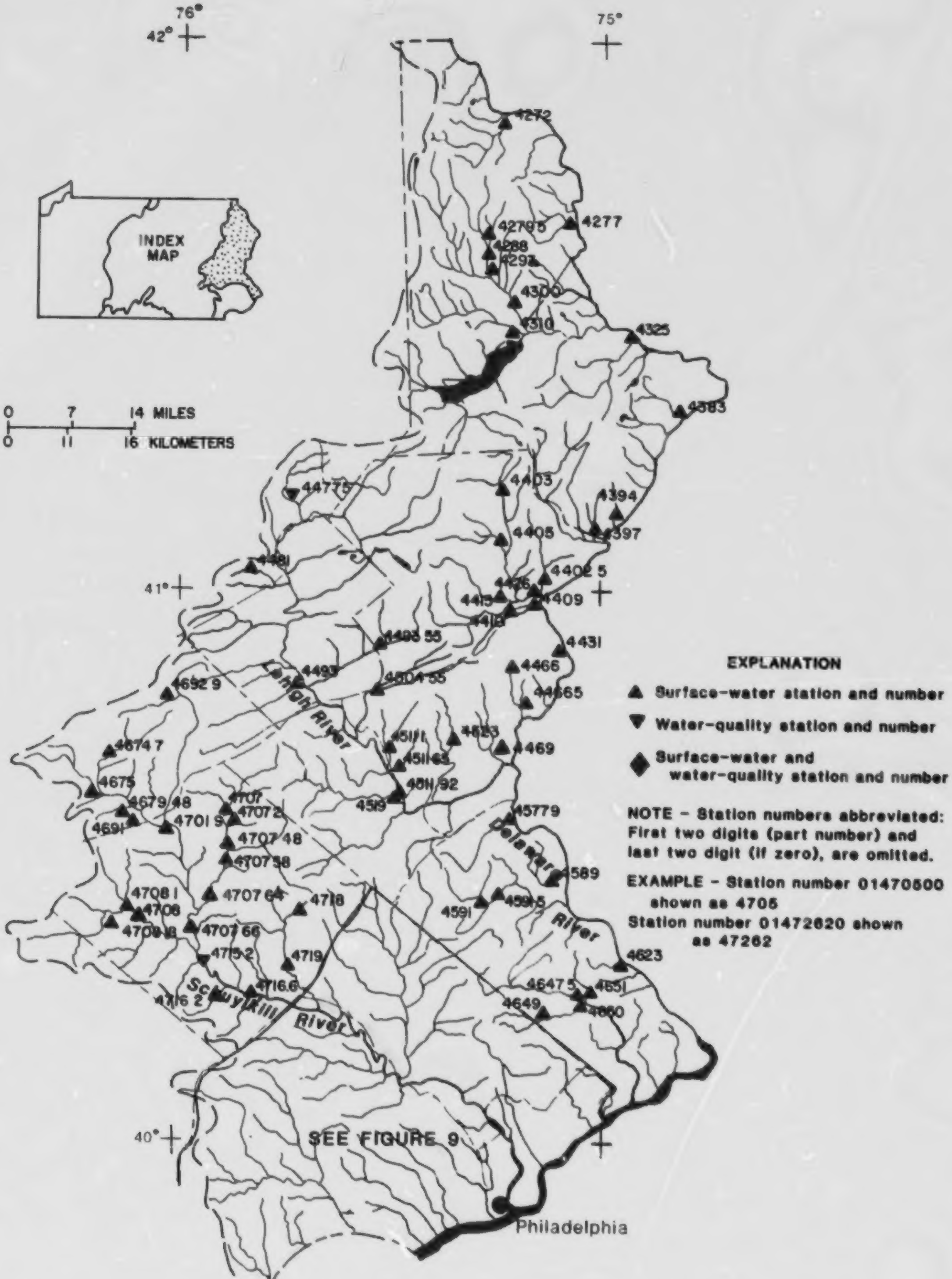

76°
42°
75°
41°
40°
INDEX MAP
0 7 14 MILES
0 11 16 KILOMETERS
4272
42795
4277
4288
4292
4300
4310
4325
4383
44775
4403
4394
4405
4397
4481
4402 5
4425
4415
4409
4418
4493 55
4431
4493
4466
4504 55
44665
4692 9
4511
4523
4469
4674 7
45ll 63
4675
45ll 92
4519
4679 48
4707
4707 2
45779
4691
4701 9
4707 48
470758
4589
4708 1
4707 64
4718
4591
4591 5
4708
4708 18
4707 66
4715 2
4719
4623
4716.6
4716 2
46475
4651
4649
4650
Lehigh River
Delaware River
Schuylkill River
SEE FIGURE 9
Philadelphia
EXPLANATION
▲ Surface-water station and number
▼ Water-quality station and number
◆ Surface-water and water-quality station and number
NOTE - Station numbers abbreviated: First two digits (part number) and last two digit (if zero), are omitted.
EXAMPLE - Station number 01470500 shown as 4705
Station number 01472620 shown as 47262

Figure 8.--Location of partial-record data-collection stations.

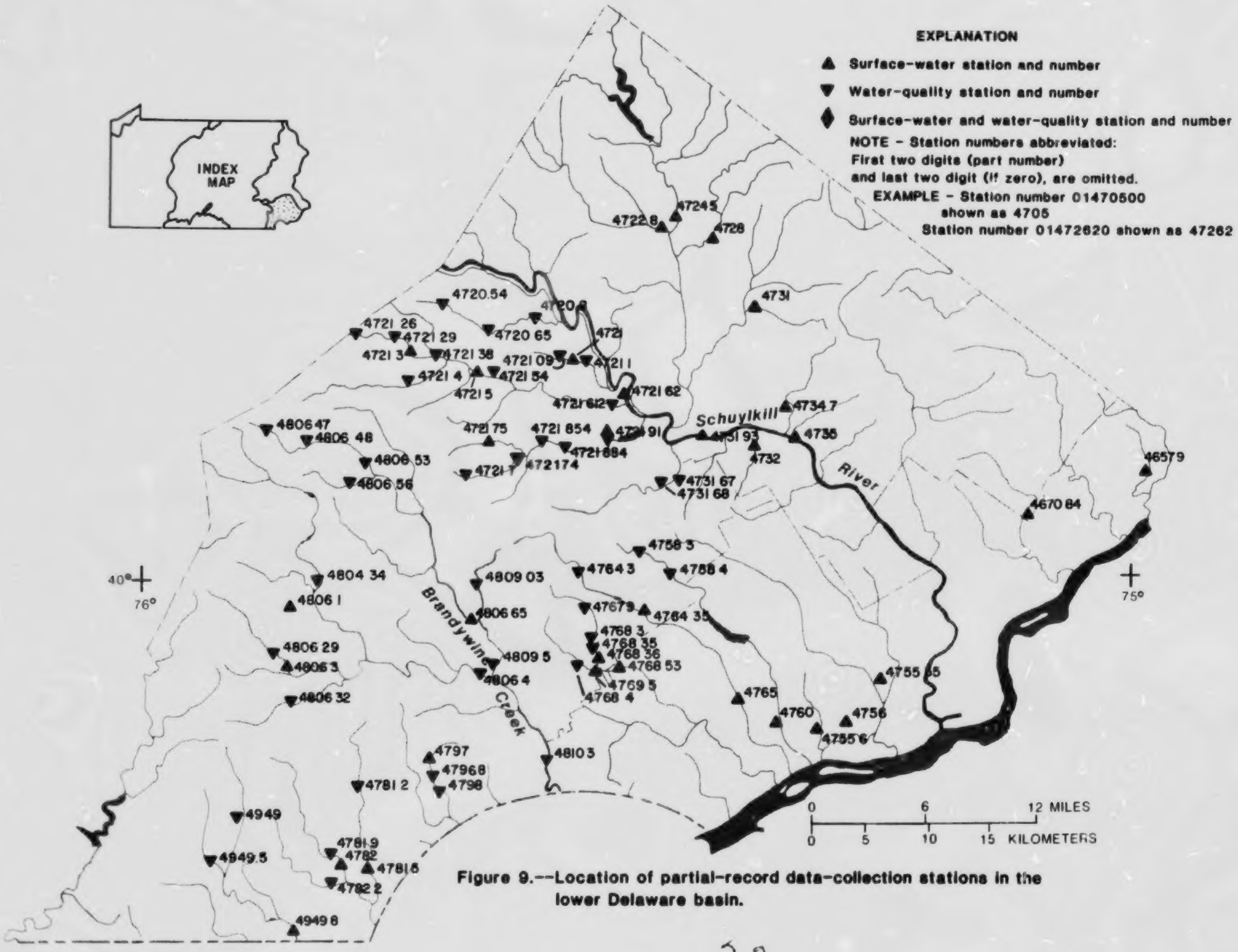

EXPLANATION
▲ Surface-water station and number
▼ Water-quality station and number
◆ Surface-water and water-quality station and number
NOTE - Station numbers abbreviated:
First two digits (part number)
and last two digit (if zero), are omitted.
EXAMPLE - Station number 01470500
shown as 4705
Station number 01472620 shown as 47262
INDEX MAP
4722.8
47245
4728
4731
4720.54
4720.6
4721
4721 26
4721 29
4720 65
4721 3
4721 38
4721 09
47211
4721 4
4721 54
4721 5
4721 612
4721 62
4734 7
Schuylkill
River
4735
4731 93
4732
480647
4806 48
4806 53
4806 56
4721 75
4721 854
4721 91
4721 884
4721 7
472174
4731 67
4731 68
46579
4670 84
4758 3
4764 3
4758 4
4804 34
4809 03
4806 1
40°
76°
75°
Brandywine
Creek
4806 65
47673
4764 35
4768 3
4768 35
4768 36
4768 53
4806 29
4806 3
4809 5
4806 4
4769 5
4768 4
4806 32
4755 55
4765
4760
4756
4755 6
4797
47968
4798
4810 3
4781 2
4949
4781.9
4782
47818
4949.5
4782 2
4949 8
0 6 12 MILES
0 5 10 15 KILOMETERS

Figure 9.--Location of partial-record data-collection stations in the lower Delaware basin.

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, NJ

LOCATION.--Lat 39°18'19", long 75°22'37", Cumberland County, Hydrologic Unit 02040204, at lighthouse in bay opposite Bombay Hook Island, DE, and 3 mi (4.8 km) south southwest of mouth of Cohansey River, NJ.

PERIOD OF RECORD.--April 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1969 to current year.
WATER TEMPERATURES: February 1970 to current year.

INSTRUMENTATION.--Water-quality monitor since April, 1969.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 59,700 micromhos Jan. 19, 1984; minimum, 380 micromhos March 9, 1984.
WATER TEMPERATURES: Maximum, 33.0°C Aug. 2, 1979; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 59,700 micromhos Jan. 19; minimum 380 micromhos March 9.
WATER TEMPERATURES: Maximum, 28,0°C Aug. 8, 14-17; minimum, 0.0°C Jan. 20-22.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	32900	27200	30800	32400	27200	30200	21800	12000	18400	---	---	---
2	32900	27600	30900	32900	27400	30400	24500	13900	19800	---	---	---
3	33800	28500	31100	32900	27100	30500	23300	15200	20200	---	---	---
4	33600	26700	30600	33600	27100	30100	28700	17700	23000	---	---	---
5	32900	27400	30400	33300	28100	30700	26000	16800	21200	23600	14400	19400
6	33100	27900	30400	33600	28500	30900	25600	15800	21100	23100	14300	19600
7	33600	28300	30700	32600	27400	30200	22100	7190	14200	21800	13500	18600
8	33600	28300	30900	33300	26200	30100	16800	7170	12500	21400	12900	17900
9	33100	28100	30800	31900	26000	29600	20400	9120	14900	22500	14700	17900
10	34300	29400	31800	34300	27400	30500	21400	8740	15100	22700	15400	18900
11	35100	30600	32700	32600	24900	29400	21500	9810	16200	23900	17900	21200
12	34100	27700	32400	29600	23500	26100	23100	14200	20300	26400	19100	22600
13	34100	27600	31200	31900	23900	27700	22700	12300	18100	32100	18400	25600
14	30400	24600	28300	34300	24800	29100	21400	8270	14800	51300	16200	26700
15	30600	24000	27800	36200	26500	31200	---	---	---	39200	22600	27500
16	31700	25700	29000	34300	29400	31800	---	---	---	58400	23800	31000
17	32600	26700	30000	31300	26000	29200	---	---	---	59100	25100	31700
18	32400	27600	30300	30200	23200	28500	---	---	---	57200	23900	30900
19	32600	28900	30600	31500	25100	29200	---	---	---	59700	24300	31300
20	33800	30200	32100	32600	25100	29800	---	---	---	55300	23000	29300
21	34100	30600	32300	31700	24300	28500	---	---	---	30200	2500	22800
22	34300	29600	32200	29400	21800	26800	---	---	---	43900	21500	27200
23	34600	29000	31900	31900	23200	27400	---	---	---	29200	23200	26700
24	32600	28300	30600	31500	22800	28300	---	---	---	28900	22600	26700
25	35400	29800	32300	29600	18300	25200	---	---	---	26500	22000	26400
26	33800	28300	31700	24200	13600	20600	---	---	---	26700	18800	24300
27	32100	26900	30100	25100	15800	21000	---	---	---	27200	19800	24600
28	31100	25700	28800	29400	16400	24400	---	---	---	30600	21300	25100
29	29200	23600	27500	28500	19200	24400	---	---	---	55900	22000	---
30	33100	25200	29300	24000	15000	20500	---	---	---	---	21400	29200
31	32400	25200	30100	---	---	---	---	---	---	---	---	---
MONTH	35400	23600	30600	36200	13600	28100	28700	7170	17800	59700	2500	24900

01412350 DELAWARE BAY AT SHIP JOHN SHOAL, LIGHTHOUSE, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	---	---	---	18500	11400	15100
2				---	---	---	---	---	---	19100	11200	14500
3				---	---	---	21800	12700	18900	19500	11400	15400
4				---	---	---	22500	14800	19100	20800	10000	14700
5				---	---	---	24300	9740	18000	15000	7990	12200
6				---	---	---	18500	5310	12700	17100	7910	12100
7				---	---	---	13800	2700	7630	15400	7450	11800
8				---	---	---	11500	3360	6690	15600	7990	12500
9				19000	380	11400	12900	5040	8710	14400	6120	10500
10				21900	12900	17000	18000	7860	11700	15100	5940	11400
11				21400	1990	---	17000	8330	13300	17200	6960	12300
12				21300	13900	17900	17700	10800	15000	14700	8210	12000
13				23800	14000	20000	18500	11500	15200	17700	7960	12200
14				22200	14600	19700	17800	11200	14500	16300	7560	11500
15				24300	14600	20300	18200	11200	14800	16400	8270	11800
16				24600	16400	20500	17900	10700	14200	17500	8610	12400
17				24500	5400	---	18100	8360	12800	18700	8770	14100
18				25700	16500	21200	15200	7940	11500	19600	10600	15200
19				25200	16300	20800	15100	6960	10500	19200	10100	15200
20				24200	15200	19300	14400	5700	10300	20100	10300	15200
21				24200	16000	20500	12800	5640	8960	20400	10100	14900
22				21600	1040	13900	15900	5640	9920	19300	11200	15100
23				18600	840	9610	15500	5280	10600	18000	8920	13100
24				16500	640	9680	16000	4800	10700	18400	8100	13700
25				17500	520	12400	17000	6540	11700	19300	8770	14500
26				19900	11900	15900	19100	11000	15100	19100	10800	14600
27				20800	9810	16200	20500	12900	16600	18700	10700	15400
28				24200	13600	19600	20100	13500	17200	19100	13100	16200
29				25400	---	---	18600	12200	16300	18500	11900	15500
30				21600	---	---	18700	12100	16300	17700	6910	12400
31				21800	---	---	---	---	---	13600	---	---
MONTH				25700	380	17000	24300	2700	13200	20800	5940	13600

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14600	3600	8380	22700	14600	18300	24300	15700	20800	27600	22200	24800
2	15200	4440	8880	21300	12500	17000	23600	15600	20700	27700	21900	25200
3	16800	6000	10800	20000	11300	16500	23900	16400	20800	27700	21400	25300
4	17000	7590	12200	19200	11200	16000	24200	16100	21000	27400	21600	25100
5	15800	6860	12300	18000	10800	14900	24800	16000	21200	28100	22200	25300
6	16800	8580	12300	17300	8860	13500	25100	10300	20700	27600	21400	25300
7	15400	7240	12400	15500	8960	12600	24900	17100	21700	29000	23100	26100
8	17000	8430	13100	16200	6320	10500	26200	16800	22200	28900	23300	26300
9	17400	8800	13300	18500	6910	12500	26500	18600	23000	28900	24200	26400
10	18500	8990	13400	19500	7370	13200	26200	20600	23700	29000	23300	26000
11	19300	9250	13800	18500	8990	13800	26900	20100	23400	27600	23600	25700
12	19100	9560	14200	19400	9670	14200	26500	19200	23400	28300	23300	26000
13	18100	10700	14500	20400	9630	14900	25900	18400	23000	28500	23100	26400
14	19200	9880	14200	19800	9630	15300	25900	17100	22600	27600	23500	25700
15	19800	11300	15200	19300	11200	15600	25200	17500	22200	26900	22100	25300
16	19900	11200	16100	19200	9390	15300	25100	18500	22000	29200	23000	26000
17	19200	10900	15800	19000	10600	15400	25600	19800	22500	29000	24000	26500
18	19400	11400	16000	18900	9630	15100	26900	19900	23200	29400	24300	27100
19	19300	9090	15700	19900	9630	14700	27700	17500	23400	30600	21400	27200
20	20000	12000	15600	21400	7990	15800	27100	20400	24100	29900	22900	27400
21	22000	9810	16600	21800	11400	16600	27700	19900	24600	31400	24400	28000
22	23000	11600	17800	18800	11400	16100	28100	19100	24000	32400	24100	28900
23	22700	13600	18400	20100	10500	16600	27400	22400	24600	30800	24700	28100
24	21200	16200	18700	19500	11300	16100	28500	22600	25600	30500	23900	27300
25	21000	13600	18600	23000	12700	17600	30400	23600	26500	30800	24700	27500
26	22000	14300	18200	24200	14700	19600	29800	23500	26400	30700	24800	27700
27	22100	14700	18600	24000	15900	20600	28900	23100	25900	32500	26300	29100
28	22500	13200	17900	26000	16300	21100	28700	22500	25400	34000	25600	29800
29	22800	14400	18300	26200	17900	21500	27600	21800	24600	34100	25100	29900
30	21600	15000	18500	25600	17200	21300	27400	21800	24700	35000	26600	30900
31	---	---	---	25200	17200	21400	27600	22200	24800	---	---	---
MONTH	23000	3600	15000	26200	6320	16200	30400	10300	23300	35000	21400	26900

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, NJ--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.5	20.5	20.5	14.5	14.0	14.0	10.0	9.5	10.0	---	---	---
2	21.0	20.5	20.5	14.5	14.0	14.5	9.5	9.0	9.5	---	---	---
3	21.0	20.5	20.5	14.5	14.5	14.5	9.5	9.0	9.0	---	---	---
4	21.0	20.5	21.0	14.5	13.5	14.0	9.0	9.0	9.0	---	---	---
5	21.5	21.0	21.0	13.5	13.0	13.5	9.0	8.5	9.0	1.0	.5	1.0
6	21.5	21.0	21.0	13.5	13.0	13.0	9.0	8.5	9.0	1.5	1.0	1.0
7	21.0	21.0	21.0	13.0	12.5	13.0	9.0	8.0	8.5	1.5	1.0	1.0
8	21.0	21.0	21.0	13.0	12.5	13.0	8.0	8.0	8.0	1.0	.5	1.0
9	21.5	21.0	21.0	13.0	12.5	13.0	8.0	7.5	8.0	1.5	.5	1.0
10	21.0	20.0	20.5	13.0	13.0	13.0	8.0	7.5	8.0	1.0	1.0	1.0
11	20.5	20.0	20.0	13.5	13.0	13.0	8.0	7.5	7.5	1.5	1.0	1.0
12	20.5	20.0	20.0	13.0	12.0	12.5	8.0	7.5	8.0	1.0	.5	1.0
13	20.5	20.0	20.0	12.0	11.0	11.5	8.5	8.0	8.5	1.0	.5	1.0
14	20.5	20.0	20.0	11.5	11.0	11.5	8.5	8.0	8.5	1.5	.5	1.0
15	20.0	19.5	19.5	11.5	11.0	11.5	---	---	---	1.0	.5	1.0
16	19.5	19.0	19.5	11.5	11.5	11.5	---	---	---	1.0	.5	1.0
17	19.5	19.0	19.5	11.5	11.0	11.0	---	---	---	1.0	.5	.5
18	19.5	19.0	19.5	11.0	10.5	11.0	---	---	---	1.0	.5	.5
19	19.5	18.5	19.0	11.0	10.0	10.5	---	---	---	1.0	.5	1.0
20	18.5	18.0	18.5	11.0	10.0	10.5	---	---	---	.5	.0	.0
21	18.0	17.5	18.0	11.0	11.0	11.0	---	---	---	.5	.0	.0
22	17.5	17.0	17.0	11.0	11.0	11.0	---	---	---	.0	.0	.0
23	17.0	16.5	16.5	11.5	11.0	11.0	---	---	---	---	---	---
24	17.0	16.5	16.5	11.5	11.0	11.0	---	---	---	---	---	---
25	16.5	15.5	16.0	11.5	10.5	11.0	---	---	---	---	---	---
26	16.0	15.5	15.5	11.0	10.0	10.5	---	---	---	---	---	---
27	15.5	15.0	15.0	11.0	10.0	10.5	---	---	---	---	---	---
28	15.0	14.5	15.0	11.0	10.5	10.5	---	---	---	---	---	---
29	15.0	15.0	15.0	11.0	10.5	11.0	---	---	---	---	---	---
30	14.5	14.0	14.5	10.5	10.0	10.5	---	---	---	---	---	---
31	14.5	14.0	14.5	---	---	---	---	---	---	---	---	---
MONTH	21.5	14.0	18.5	14.5	10.0	12.0	10.0	7.5	8.5	1.5	.0	1.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	7.5	6.5	7.0	17.5	14.5	16.0
2				---	---	---	8.0	6.5	7.0	17.0	14.5	15.5
3				---	---	---	8.5	7.0	7.5	15.5	14.5	15.0
4				---	---	---	8.5	7.5	8.0	16.5	14.5	15.5
5				---	---	---	9.0	8.0	8.5	---	---	---
6				---	---	---	10.0	8.5	9.0	---	---	---
7				---	---	---	9.5	9.0	9.5	18.0	15.0	15.5
8				---	---	---	10.0	9.0	9.5	15.0	14.5	15.0
9				4.0	0.0	3.0	10.0	9.0	9.5	15.5	15.0	15.0
10				4.0	2.5	3.5	---	---	---	16.5	15.5	16.0
11				4.0	3.0	3.5	---	---	---	17.5	16.0	16.5
12				3.5	3.0	3.5	---	---	---	16.5	16.0	16.0
13				3.5	3.0	3.5	---	---	---	17.0	15.5	16.0
14				3.5	3.5	3.5	---	---	---	16.0	15.5	16.0
15				4.0	3.5	3.5	---	---	---	16.0	15.5	15.5
16				4.5	3.5	4.0	---	---	---	15.5	15.0	15.5
17				4.5	4.0	4.0	---	---	---	16.0	13.0	14.5
18				5.0	4.5	4.5	---	---	---	14.5	14.0	14.0
19				5.5	4.5	5.0	12.0	11.0	11.5	14.5	14.0	14.0
20				5.5	5.0	5.0	12.0	11.5	11.5	16.0	14.0	14.5
21				6.0	5.5	5.5	12.0	11.5	11.5	18.5	13.5	17.5
22				6.5	5.5	6.0	12.0	11.0	11.5	19.5	17.0	18.0
23				6.5	6.0	6.5	11.5	11.0	11.0	19.5	17.5	18.5
24				7.5	6.0	6.5	14.0	11.0	11.5	20.0	18.0	19.0
25				7.0	6.5	6.5	11.5	11.0	11.0	20.5	18.0	19.5
26				7.5	6.0	6.5	13.0	11.5	12.0	21.0	19.0	20.0
27				7.5	6.5	7.0	14.0	12.0	13.0	21.0	20.0	20.5
28				7.5	7.0	7.0	14.0	13.0	13.0	20.5	20.0	20.0
29				7.0	6.5	6.5	23.5	13.0	19.0	21.0	20.0	20.5
30				6.5	6.5	6.5	20.5	14.5	17.0	20.5	19.5	20.5
31				7.0	6.0	6.5	---	---	---	20.5	19.5	20.0
MONTH				7.5	.0	5.0	23.5	6.5	11.0	20.5	13.0	17.0

01412350 DELAWARE BAY AT SHIP JOHN SHOAL LIGHTHOUSE, NJ--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	20.0	19.5	20.0	26.0	24.5	25.5	25.0	24.0	24.5	24.5	24.0	24.0
2	19.5	19.0	19.5	26.0	25.0	25.5	25.5	24.5	24.5	24.5	23.5	24.0
3	19.5	19.0	19.0	26.5	25.5	26.0	26.0	24.5	25.0	25.5	24.0	24.0
4	20.5	18.5	19.5	27.0	26.0	26.5	26.5	24.5	25.5	24.5	23.5	23.5
5	20.5	19.0	20.0	27.0	26.0	26.5	27.5	25.0	26.0	24.0	23.0	23.5
6	21.5	19.5	20.5	27.5	26.5	27.0	27.0	25.5	26.0	23.5	22.5	23.0
7	21.5	20.0	21.0	27.5	26.5	27.0	27.0	25.5	26.0	23.0	22.0	22.5
8	23.0	20.5	21.5	27.0	26.0	26.5	28.0	25.5	26.5	22.5	22.0	22.5
9	23.0	21.5	22.0	26.5	25.5	26.0	27.5	26.0	26.5	22.5	22.0	22.0
10	24.0	22.0	23.0	26.0	25.0	25.5	27.0	26.0	26.5	22.5	22.0	22.0
11	25.0	23.0	23.5	27.0	25.0	26.0	27.0	26.0	26.5	22.5	22.0	22.0
12	25.0	23.5	24.0	27.0	25.5	26.0	27.5	26.0	26.5	22.5	22.0	22.5
13	26.0	24.0	24.5	27.5	25.5	26.0	27.0	26.5	27.0	22.5	22.0	22.0
14	25.5	24.5	25.0	27.5	26.0	26.5	28.0	26.5	27.0	23.0	22.0	22.5
15	26.0	24.5	25.0	27.5	26.0	26.5	28.0	27.0	27.0	22.5	22.0	22.0
16	24.5	24.0	24.5	27.5	26.5	27.0	28.0	27.0	27.5	22.0	21.0	21.5
17	24.0	23.5	24.0	27.5	26.5	27.0	28.0	27.0	27.0	21.0	20.5	24.5
18	24.0	23.5	23.5	27.0	26.5	27.0	27.5	26.5	27.0	21.0	20.0	20.5
19	25.5	23.5	24.0	27.0	25.5	26.0	27.0	26.0	26.5	21.0	20.0	20.5
20	25.0	24.0	24.5	27.0	25.0	25.5	26.5	25.5	26.0	21.5	20.0	20.5
21	26.0	23.5	24.5	26.0	25.0	25.5	26.0	24.5	24.5	21.0	20.5	20.5
22	25.5	23.5	24.5	25.5	24.5	25.5	25.5	24.5	24.5	21.0	20.5	20.5
23	25.0	23.5	24.5	27.0	25.0	25.5	25.0	24.5	24.5	21.0	20.5	21.0
24	24.5	24.0	24.0	26.5	25.0	26.0	24.5	24.0	24.5	21.5	21.0	21.0
25	25.5	24.0	24.5	26.0	25.0	25.5	24.5	23.5	24.0	21.5	21.0	21.5
26	25.0	24.0	24.5	26.0	24.5	25.5	24.5	23.5	24.0	21.5	21.0	21.5
27	25.0	24.0	24.5	25.5	24.5	25.0	24.0	23.5	24.0	21.0	20.0	20.5
28	25.5	24.0	24.5	24.5	23.5	24.5	24.0	23.5	24.0	20.0	18.5	19.5
29	25.0	24.0	24.5	24.5	23.5	24.0	24.0	23.5	24.0	19.0	18.0	18.5
30	25.5	24.5	25.0	24.5	23.5	24.0	24.5	24.0	24.0	18.0	17.5	18.0
31	---	---	---	24.5	23.5	24.0	24.5	24.0	24.5	---	---	---
MONTH	26.0	18.5	23.0	27.5	23.5	26.0	28.0	23.5	25.5	25.5	17.5	21.5

01427207 DELAWARE RIVER AT LORDVILLE, NY

LOCATION.--Lat 41°52'05", long 75°12'50", Delaware County, Hydrologic Unit 02040101, at Lordville-Equinunk Interstate Bridge at Lordville, 50 ft downstream from Humphries Brook, and 6.5 mi southeast of Hancock.

DRAINAGE AREA.--1,590 mi².

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1967 to August 1971, June 1973 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

INSTRUMENTATION.--Temperature recorder since October 1967.

REMARKS.--No record May 23 to June 13, due to clock stoppage.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1968-70, 1973, 1975-84) 30.5°C June 16, 1976, July 10, 1981; minimum (water years 1968-71, 1974, 1977-78, 1980-84), freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 26.5°C July 16; minimum, freezing point on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	13.5	14.0	7.5	6.5	7.0	4.0	3.0	3.5	.5	.5	.5
2	16.0	14.0	15.0	9.0	7.5	8.5	3.0	3.0	3.0	.5	.5	.5
3	17.5	15.5	16.5	10.0	9.0	9.5	2.5	2.5	2.5	.5	.5	.5
4	16.5	15.0	15.5	10.0	8.0	9.0	2.0	1.0	1.0	.5	.5	.5
5	16.0	15.0	15.5	8.0	7.5	8.0	2.5	1.0	1.5	.5	.5	.5
6	16.0	15.0	15.5	7.5	7.5	7.5	3.5	2.5	3.0	.5	.5	.5
7	15.0	14.0	14.5	7.5	7.5	7.5	3.5	2.5	3.5	.5	.5	.5
8	15.0	13.5	14.5	7.5	7.5	7.5	2.5	1.5	1.5	.5	.5	.5
9	15.0	14.5	15.0	8.5	7.5	8.0	1.5	1.0	1.5	.5	.5	.5
10	15.0	13.5	14.0	8.5	8.0	8.0	2.5	1.5	2.0	.5	.5	.5
11	14.5	14.0	14.0	8.5	8.0	8.0	2.5	2.5	2.5	.5	.5	.5
12	15.0	14.0	14.5	8.0	5.0	7.0	2.0	1.5	1.5	.5	.5	.5
13	17.5	15.0	16.0	5.0	3.5	4.0	4.5	2.0	3.0	.5	.5	.5
14	17.5	15.0	16.5	3.5	3.0	3.0	5.0	4.5	4.5	.5	.5	.5
15	15.0	13.5	14.0	3.5	3.0	3.5	5.5	5.0	5.5	.5	.5	.5
16	14.0	12.0	13.0	5.5	4.0	4.5	5.5	4.5	5.0	.5	.5	.5
17	14.5	13.5	14.0	5.0	4.0	4.5	4.5	2.5	3.5	.5	.5	.5
18	14.5	14.5	14.5	4.0	3.0	3.5	2.0	1.0	1.5	.5	.5	.5
19	14.5	14.0	14.5	5.0	3.5	4.0	1.0	.5	1.0	.5	.5	.5
20	14.0	12.5	13.0	8.5	5.0	6.0	.5	.5	.5	.5	.5	.5
21	12.5	11.0	11.5	9.0	8.0	8.5	.5	.5	.5	.5	.5	.5
22	11.0	9.5	10.0	8.0	6.5	7.0	.5	.5	.5	.5	.5	.5
23	9.5	9.5	9.5	7.0	6.0	6.5	.5	.5	.5	.5	.5	.5
24	10.5	9.5	10.0	7.0	6.5	6.5	.5	.5	.5	.5	.5	.5
25	10.5	9.5	10.0	7.0	4.0	5.5	.5	.5	.5	.5	.5	.5
26	9.5	9.0	9.0	4.0	3.5	4.0	.5	.5	.5	.5	.5	.5
27	9.0	8.0	8.5	5.0	4.0	4.5	.5	.5	.5	.5	.5	.5
28	8.5	7.0	8.0	4.5	4.0	4.0	.5	.5	.5	.5	.5	.5
29	8.5	8.0	8.5	4.0	4.0	4.0	.5	.5	.5	.5	.5	.5
30	7.5	6.5	7.0	4.5	4.0	4.0	.5	.5	.5	.5	.5	.5
31	7.0	6.0	6.5	---	---	---	.5	.5	.5	.5	.5	.5
MONTH	17.5	6.0	12.5	10.0	3.0	6.0	5.5	.5	2.0	.5	.5	.5

01427207 DELAWARE RIVER AT LORDVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.5	.5	.5	.5	.0	.0	5.5	2.0	3.5	12.0	9.0	10.5
2	.5	.5	.5	.0	.0	.0	6.0	3.0	4.5	12.0	8.5	10.5
3	.5	.5	.5	.0	.0	.0	7.0	3.5	5.0	10.5	7.5	9.0
4	.5	.5	.5	.0	.0	.0	5.5	4.0	4.5	7.5	6.5	7.0
5	.5	.5	.5	.0	.0	.0	4.0	3.5	4.0	7.5	6.0	7.0
6	.5	.5	.5	.0	.0	.0	4.0	3.5	3.5	10.5	6.0	8.0
7	.5	.5	.5	.5	.0	.0	3.5	2.5	3.0	11.5	7.5	9.5
8	.5	.5	.5	.0	.0	.0	4.5	2.0	3.0	11.5	7.5	9.0
9	.5	.5	.5	.0	.0	.0	5.5	2.0	4.0	8.5	7.0	7.5
10	.5	.0	.0	.0	.0	.0	5.5	2.5	4.0	8.5	6.0	7.0
11	.0	.0	.0	.0	.0	.0	7.5	3.5	5.5	8.5	6.5	7.5
12	.0	.0	.0	.0	.0	.0	9.0	4.0	6.5	8.5	7.0	7.5
13	.0	.0	.0	.0	.0	.0	8.0	5.5	6.0	9.5	7.0	8.0
14	.0	.0	.0	.0	.0	.0	6.0	4.5	5.0	8.5	6.5	7.5
15	2.5	.0	1.0	.0	.0	.0	4.5	4.0	4.0	7.5	6.0	6.5
16	4.5	2.5	3.5	.0	.0	.0	4.0	3.5	4.0	7.0	5.5	6.0
17	4.5	4.0	4.5	.0	.0	.0	5.0	4.0	4.5	9.5	5.0	7.0
18	4.5	4.0	4.5	1.5	.0	.5	5.5	4.0	5.0	9.0	7.0	7.5
19	4.5	4.0	4.5	3.5	1.0	2.0	5.0	4.0	4.5	11.0	6.5	8.5
20	4.0	4.0	4.0	6.5	3.0	4.5	4.0	4.0	4.0	11.0	8.0	9.5
21	3.5	2.5	3.0	5.5	4.0	5.0	6.0	3.5	4.5	12.5	7.5	9.5
22	3.5	1.5	2.5	4.0	3.0	3.0	5.5	3.0	4.5	15.0	10.5	12.5
23	4.5	2.0	3.5	3.0	2.0	2.5	5.0	3.5	4.0	---	---	---
24	6.5	4.0	5.0	3.5	.5	2.5	3.5	3.5	3.5	---	---	---
25	6.5	4.0	5.5	5.0	2.0	3.5	3.5	3.5	3.5	---	---	---
26	3.5	1.5	2.0	5.0	3.0	4.0	8.0	3.0	5.5	---	---	---
27	2.0	.5	1.5	5.0	2.5	4.0	11.0	6.0	8.5	---	---	---
28	1.5	1.0	1.0	5.0	2.5	4.0	11.0	8.5	10.0	---	---	---
29	1.0	.5	1.0	2.0	.0	.5	14.0	8.5	11.0	---	---	---
30	---	---	---	1.0	.0	.5	12.5	9.0	10.5	---	---	---
31	---	---	---	4.0	1.0	2.5	---	---	---	---	---	---
MONTH	6.5	.0	2.0	6.5	.0	1.5	14.0	2.0	5.0	15.0	5.0	8.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	18.5	16.5	17.5	21.0	19.0	20.5	18.0	15.0	16.0
2	---	---	---	20.0	16.0	17.5	22.0	19.5	20.5	15.0	13.5	14.5
3	---	---	---	21.0	18.5	20.0	20.5	17.5	19.5	14.5	13.5	14.0
4	---	---	---	22.0	19.0	20.5	20.0	16.0	18.0	16.5	14.5	15.5
5	---	---	---	21.5	19.5	20.5	19.5	17.5	18.5	16.5	14.0	15.5
6	---	---	---	20.0	19.0	19.5	19.5	16.5	18.0	15.0	13.0	14.0
7	---	---	---	20.5	18.0	19.5	20.5	18.0	19.0	15.0	12.0	13.5
8	---	---	---	19.5	17.0	18.5	21.5	17.5	19.0	15.0	12.0	13.5
9	---	---	---	20.0	16.5	18.0	21.0	19.0	20.0	15.0	13.0	14.0
10	---	---	---	19.5	18.0	19.0	21.0	18.5	20.0	16.0	13.5	15.0
11	---	---	---	22.0	18.5	20.0	18.5	16.5	17.0	18.5	15.5	16.5
12	---	---	---	24.0	20.0	22.0	19.0	16.0	17.5	19.0	16.0	17.5
13	---	---	---	24.5	21.5	23.0	20.0	18.5	19.0	17.5	14.5	15.5
14	22.0	18.0	20.0	25.5	22.0	23.5	22.0	18.0	20.0	17.5	15.5	16.0
15	20.0	17.5	18.5	25.5	23.0	24.5	22.0	20.5	21.5	15.0	11.5	13.0
16	20.5	16.0	18.0	26.5	23.5	25.0	21.5	19.0	20.0	12.5	10.0	11.0
17	19.5	16.5	18.0	25.0	22.5	24.0	20.0	17.5	18.5	15.0	11.5	13.0
18	16.5	14.0	15.0	23.5	16.5	21.5	17.5	15.0	16.5	13.5	11.0	12.5
19	21.0	14.5	17.5	20.0	16.0	17.5	16.0	15.0	15.0	13.5	12.0	12.5
20	23.0	18.5	20.5	20.5	17.5	18.5	18.5	14.0	16.0	15.5	13.0	14.0
21	22.5	18.5	20.5	19.5	18.0	19.0	19.0	15.5	17.0	15.0	13.0	14.0
22	22.5	18.5	20.5	21.5	16.5	18.5	20.0	16.0	18.0	13.5	11.5	12.5
23	21.0	19.5	20.5	22.5	19.0	21.0	20.0	18.5	19.0	15.0	13.0	14.0
24	20.0	16.5	18.5	23.0	20.0	21.5	19.0	17.0	18.0	15.5	14.0	15.0
25	19.5	15.5	17.5	21.5	18.0	19.5	18.5	15.0	17.0	16.5	14.0	15.0
26	20.5	17.5	19.0	20.5	17.0	19.0	18.0	15.0	16.5	16.0	12.5	14.5
27	21.5	17.5	19.5	20.0	15.5	18.0	19.5	16.5	18.0	12.5	10.5	11.5
28	22.5	19.5	21.0	17.0	13.5	15.0	19.5	17.0	18.5	11.0	10.5	10.5
29	21.0	17.0	19.5	19.0	15.5	17.0	19.5	17.5	18.5	12.5	10.0	11.0
30	18.5	16.0	17.0	19.5	17.5	18.5	20.0	17.5	18.5	12.5	10.5	11.5
31	---	---	---	22.0	18.0	19.5	21.0	17.5	19.0	---	---	---
MONTH	23.0	14.0	19.0	26.5	13.5	20.0	22.0	14.0	18.5	19.0	10.0	14.0

01427510 DELAWARE RIVER AT CALLICOON, NY

LOCATION.--Lat 41°45'24", long 75°03'30", Wayne County, Pennsylvania, Hydrologic Unit 02040101, on right bank, 0.5 mi downstream from Callicoon Creek, 0.5 mi downstream from Interstate Bridge 7, and 0.8 mi southeast of Callicoon. Water-quality sampling site at discharge station.

DRAINAGE AREA.--1,820 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1975 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 750 ft, from topographic map (nearest 20 ft).

REMARKS.--Records good except those for winter periods, which are poor. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during period of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,300 ft³/s Feb. 12, 1981, result of ice jam release, gage height, 13.19 ft; maximum gage height, 14.83 ft Jan. 9, 1979 (ice jam); minimum discharge, 335 ft³/s Sept. 13, 1977, gage height, 2.20 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 48,300 ft³/s May 29, gage height, 10.71 ft; minimum, 624 ft³/s Oct. 14, 15, but may have been lower during period of ice effect; minimum gage height, 2.53 ft Oct. 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1480	1480	3220	2520	770	2200	2230	3190	19400	3330	1020	1280
2	1430	1490	2550	2350	1000	1850	2390	2800	13200	3360	1050	1280
3	1200	1480	2210	2200	1450	1600	2760	2520	9700	2060	1220	1320
4	1470	1500	2000	2090	2140	1400	3450	4520	7790	1550	1440	1080
5	1570	1500	2000	2080	3020	1250	12200	6080	6180	1340	1490	903
6	1570	1570	2680	2060	3100	1400	23700	5530	4830	1300	1390	985
7	1540	1560	7950	2070	2620	1300	13800	5080	3940	1780	1310	1020
8	1520	1470	5950	1900	2200	1150	10100	4890	3150	2230	1240	1280
9	1520	1500	4240	1600	1900	1100	7820	6070	2730	1580	1110	1250
10	1540	1540	3420	1400	1800	1180	6440	5930	2300	1320	1060	1030
11	1580	1300	2810	1300	2050	1070	5500	5240	1920	1230	1180	954
12	1620	1470	2520	1170	2350	1000	4780	5270	1570	1450	1380	895
13	1460	1480	15100	1050	3350	1040	4180	6080	1370	1440	1330	1140
14	1010	1240	34900	980	5600	1480	3910	7040	1380	1220	1160	1160
15	1100	1130	15200	900	24200	2260	4960	7650	1300	1100	1090	1480
16	1230	1010	8420	830	23700	1450	8620	7280	1130	1090	1430	1310
17	1300	863	5820	780	11800	1520	14700	6480	1060	1130	1310	956
18	1530	1300	4410	740	7900	1530	12100	5640	1110	1270	1340	1320
19	1610	1200	3570	710	6440	1450	10600	5000	1220	1610	1310	1300
20	1500	1150	2500	690	6320	1650	10800	4520	1090	1220	1190	1280
21	1520	1510	1550	680	5370	2460	9150	5090	951	1100	1190	1350
22	1510	2200	1700	680	4370	4040	7830	4610	882	1130	1040	1410
23	1500	1590	2120	720	3670	3740	6860	4230	843	1150	1100	1360
24	1380	1360	1800	860	3350	3020	6380	5040	837	1100	1100	1170
25	1280	2690	1410	1050	3080	2680	6060	4570	1020	1010	1180	1170
26	1440	3710	1570	1350	2860	2700	5500	3890	1040	893	1230	1180
27	1380	2870	1960	2000	2420	2690	4830	3370	895	1020	954	1110
28	1340	2560	2380	1700	2220	2600	4230	4150	932	2060	988	1070
29	1360	3820	3130	1400	2500	2670	3800	31100	1080	1520	1040	1370
30	1350	4210	3910	1500	---	2670	3470	41000	2000	1230	1050	1350
31	1420	---	2920	1050	---	2360	---	30000	---	1100	999	---
TOTAL	44260	53753	155920	42410	143550	60510	223150	243860	96850	45923	36921	35763
MEAN	1428	1792	5030	1368	4950	1952	7438	7866	3228	1481	1191	1192
MAX	1620	4210	34900	2520	24200	4040	23700	41000	19400	3360	1490	1480
MIN	1010	863	1410	680	770	1000	2230	2520	837	893	954	895

CAL YR 1983 TOTAL 1081433 MEAN 2963 MAX 34900 MIN 700
WTR YR 1984 TOTAL 1182870 MEAN 3232 MAX 41000 MIN 680

01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1975 to current year.

INSTRUMENTATION.--Temperature recorder since June 1975.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1976-84), 29.5°C Aug. 7-9, 1980; minimum, freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5°C July 15-16; minimum, freezing point on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.0	15.0	15.0	7.0	5.5	6.0	3.5	3.0	3.5	.0	.0	.0
2	17.0	15.0	16.0	8.0	6.5	7.0	3.0	2.5	3.0	.0	.0	.0
3	18.0	16.0	17.0	8.0	8.0	8.0	2.5	2.0	2.5	.0	.0	.0
4	18.0	16.5	17.0	8.0	7.0	8.0	2.0	1.0	1.0	.0	.0	.0
5	17.5	16.5	17.0	7.0	6.5	7.0	1.5	1.0	1.0	.0	.0	.0
6	17.0	16.0	16.5	6.5	6.5	6.5	2.5	1.5	2.0	.0	.0	.0
7	16.0	15.0	15.5	6.5	6.5	6.5	2.5	2.5	2.5	.0	.0	.0
8	15.5	13.5	15.0	7.0	6.0	6.5	2.5	1.5	2.0	.0	.0	.0
9	15.0	14.0	14.5	7.5	6.5	7.0	1.5	1.0	1.0	.0	.0	.0
10	14.5	13.5	14.0	7.5	7.0	7.0	1.5	1.0	1.0	.0	.0	.0
11	14.0	13.0	13.0	7.5	7.0	7.5	1.5	1.5	1.5	.0	.0	.0
12	14.0	13.0	13.5	7.5	5.0	6.0	1.5	1.5	1.5	.0	.0	.0
13	16.5	14.5	15.0	5.0	4.0	4.0	3.5	1.5	2.0	.0	.0	.0
14	16.5	15.0	16.0	3.5	2.5	3.0	4.0	3.5	3.5	.0	.0	.0
15	15.0	13.5	14.0	3.0	3.0	3.0	4.5	4.0	4.0	.0	.0	.0
16	13.5	12.0	13.0	4.5	3.0	3.5	4.5	4.0	4.5	.0	.0	.0
17	13.5	12.0	12.5	4.5	3.5	4.0	4.0	2.5	3.5	.0	.0	.0
18	13.5	13.0	13.0	3.5	3.0	3.0	2.0	1.0	1.5	.0	.0	.0
19	14.0	13.5	13.5	4.0	3.0	3.5	1.0	.0	.5	.0	.0	.0
20	13.5	12.0	13.0	7.0	4.0	5.0	.0	.0	.0	.0	.0	.0
21	12.0	10.5	11.0	7.5	7.0	7.0	.0	.0	.0	.0	.0	.0
22	10.5	9.5	10.0	7.5	7.0	7.0	.0	.0	.0	.0	.0	.0
23	9.5	9.0	9.0	6.5	6.0	6.0	.0	.0	.0	.0	.0	.0
24	10.5	9.0	9.5	6.5	6.5	6.5	.0	.0	.0	.0	.0	.0
25	10.5	9.0	9.5	6.5	4.5	5.0	.0	.0	.0	.0	.0	.0
26	9.0	9.0	9.0	4.0	4.0	4.0	.0	.0	.0	.0	.0	.0
27	9.0	8.0	8.5	4.0	4.0	4.0	.0	.0	.0	.0	.0	.0
28	8.5	7.0	8.0	4.0	3.5	4.0	.0	.0	.0	.0	.0	.0
29	8.5	7.5	8.0	3.5	3.5	3.5	.0	.0	.0	.0	.0	.0
30	7.5	6.0	6.5	3.5	3.5	3.5	.0	.0	.0	.0	.0	.0
31	6.5	5.0	6.0	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	18.0	5.0	12.5	8.0	2.5	5.5	4.5	.0	1.5	.0	.0	.0

01427510 DELAWARE RIVER AT CALLICOON, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	.0	.0	.0	6.5	3.0	4.5	13.0	10.5	11.5
2	.0	.0	.0	.0	.0	.0	7.5	4.0	5.5	13.0	10.0	11.5
3	.0	.0	.0	.0	.0	.0	8.0	5.0	6.5	11.0	10.0	10.5
4	.0	.0	.0	.0	.0	.0	6.5	5.5	6.0	10.5	9.5	9.5
5	.0	.0	.0	.0	.0	.0	5.5	5.0	5.0	9.5	9.5	9.5
6	.0	.0	.0	.0	.0	.0	5.0	5.0	5.0	11.0	9.0	10.0
7	.0	.0	.0	.0	.0	.0	5.0	4.5	4.5	12.0	10.5	11.0
8	.0	.0	.0	.0	.0	.0	4.5	4.0	4.0	11.5	10.5	11.0
9	.0	.0	.0	.0	.0	.0	5.5	4.5	5.0	10.5	10.0	10.5
10	.0	.0	.0	.0	.0	.0	6.0	5.5	5.5	10.0	9.5	9.5
11	.0	.0	.0	.0	.0	.0	7.0	6.0	6.5	9.5	9.0	9.5
12	.0	.0	.0	.0	.0	.0	8.5	7.0	7.5	10.5	9.5	9.5
13	.0	.0	.0	.0	.0	.0	8.0	7.0	8.0	11.5	10.5	11.0
14	.0	.0	.0	.0	.0	.0	7.0	6.0	6.5	11.0	10.0	10.5
15	1.0	.0	.0	.0	.0	.0	6.0	6.0	6.0	9.5	9.5	9.5
16	3.0	1.5	2.5	.0	.0	.0	6.0	6.0	6.0	9.0	8.5	9.0
17	3.0	3.0	3.0	.5	.0	.0	6.5	6.0	6.0	9.5	8.0	9.0
18	3.5	3.0	3.5	1.0	.5	.5	7.0	6.5	7.0	9.5	9.5	9.5
19	3.5	3.5	3.5	2.5	.5	1.5	7.0	6.5	7.0	11.0	9.0	10.0
20	3.5	3.5	3.5	5.0	1.5	3.0	6.5	6.5	6.5	11.0	11.0	11.0
21	3.5	2.5	3.0	4.5	3.5	4.0	7.0	6.0	6.5	13.0	10.5	11.5
22	2.5	2.0	2.5	3.5	3.5	3.5	7.0	6.5	7.0	16.5	13.0	14.5
23	3.0	2.0	2.5	3.5	2.5	3.0	7.0	6.0	6.5	16.0	15.0	15.5
24	4.5	3.0	3.5	4.0	2.0	3.0	6.0	6.0	6.0	15.5	14.0	15.0
25	4.5	3.5	4.5	5.0	2.5	3.5	6.0	6.0	6.0	16.5	14.0	15.5
26	3.5	1.5	2.5	5.5	3.5	4.5	9.0	6.0	7.5	18.0	15.5	16.5
27	1.5	1.0	1.0	6.0	3.5	5.0	12.0	9.0	10.0	18.0	15.5	16.5
28	1.0	1.0	1.0	5.0	3.5	4.5	12.0	11.0	11.5	16.5	14.0	15.5
29	1.0	.0	.5	3.5	1.5	2.5	14.0	11.0	12.5	13.5	12.0	12.5
30	---	---	---	2.0	1.0	1.5	12.5	12.0	12.5	12.0	11.5	12.0
31	---	---	---	4.0	2.0	3.0	---	---	---	11.5	11.5	11.5
MONTH	4.5	.0	1.5	6.0	.0	1.5	14.0	3.0	7.0	18.0	8.0	11.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.5	11.5	11.5	19.0	17.0	18.0	24.0	21.5	23.0	21.5	18.5	20.5
2	14.0	12.5	13.0	20.0	17.5	18.5	25.0	22.0	24.0	19.0	17.0	18.0
3	14.0	12.5	13.5	22.0	19.0	20.5	24.5	23.0	23.5	17.5	16.5	17.0
4	14.0	12.0	13.0	24.0	20.0	22.0	24.0	21.5	23.0	18.5	16.0	17.0
5	16.0	14.0	15.0	23.0	21.0	22.0	22.5	20.5	21.0	18.0	15.0	16.5
6	18.0	15.5	16.5	22.0	21.0	21.5	23.5	20.5	22.0	17.0	14.5	16.0
7	21.0	17.5	19.0	22.5	20.5	21.5	23.5	21.0	22.5	17.5	13.5	15.5
8	23.0	19.5	21.0	21.5	19.0	20.5	25.0	21.0	23.0	17.5	14.0	16.0
9	24.0	20.0	22.0	21.0	18.0	19.5	24.0	22.0	23.0	17.5	14.5	16.0
10	25.0	21.0	23.0	21.0	18.5	20.0	24.0	22.0	22.5	17.5	15.0	16.5
11	25.5	22.5	24.0	23.5	20.0	21.5	22.0	21.5	21.5	19.5	16.0	17.5
12	26.0	21.5	23.5	25.0	20.5	23.0	21.5	19.5	20.5	20.5	17.5	19.0
13	26.0	22.0	24.0	25.5	21.5	24.0	23.0	20.0	21.5	20.5	17.0	19.0
14	23.5	22.0	23.0	27.0	22.5	24.5	24.5	21.5	23.0	19.5	17.5	18.5
15	21.5	19.5	20.5	27.5	23.5	25.5	24.5	22.0	23.5	18.0	14.5	16.5
16	22.0	17.5	20.0	27.5	24.5	26.0	24.5	22.0	23.5	14.5	12.0	13.5
17	21.0	19.0	19.5	27.0	23.5	25.5	23.0	21.0	22.5	15.5	11.5	13.5
18	19.0	18.5	18.5	25.0	22.0	23.5	22.0	19.0	21.0	16.5	12.5	14.5
19	23.0	18.0	20.5	22.5	20.0	21.5	20.5	18.0	18.5	16.5	13.0	14.5
20	24.5	19.5	22.0	23.5	19.5	21.0	19.0	17.0	18.0	17.5	14.0	15.5
21	25.0	20.0	22.5	23.0	21.5	22.0	20.5	16.0	18.5	17.5	14.5	16.5
22	25.0	20.0	23.0	25.0	20.5	22.5	21.5	18.0	20.0	17.0	14.0	15.5
23	23.5	20.5	22.5	26.0	22.0	24.0	22.0	20.0	21.0	17.5	14.0	16.0
24	23.0	20.5	21.0	25.5	23.5	24.5	21.0	19.0	20.0	18.5	16.0	17.5
25	23.0	19.5	21.0	24.5	21.5	23.5	21.5	18.0	19.5	19.5	17.0	18.0
26	22.5	19.5	21.0	24.5	20.5	22.5	21.0	17.5	19.5	18.0	15.0	16.5
27	24.0	19.0	21.5	24.0	19.5	21.0	20.5	18.0	19.5	14.5	13.0	13.5
28	25.0	21.0	23.0	19.5	18.5	19.0	22.0	19.0	20.5	12.5	11.5	12.0
29	23.5	21.0	22.5	22.0	17.5	19.5	22.5	20.5	21.5	13.0	11.0	12.0
30	19.5	18.0	19.0	22.0	19.0	21.0	23.0	20.0	22.0	14.5	10.5	12.5
31	---	---	---	24.0	20.0	22.0	22.5	20.5	22.0	---	---	---
MONTH	26.0	11.5	20.0	27.5	17.0	22.0	25.0	16.0	21.5	21.5	10.5	16.0

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY

LOCATION.--Lat 41°30'31", long 74°59'11", Sullivan County, Hydrologic Unit 02040101, on left bank 1.6 mi upstream from Lackawaxen River, and 4.6 mi northwest of Barryville. Water-quality sampling site at discharge station.

DRAINAGE AREA.--2,020 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

REVISED RECORDS.--WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 600.22 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records excellent except those for winter periods, which are poor. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir (see Reservoirs in Delaware River Basin), and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow of these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130,000 ft³/s Aug. 19, 1955, gage height, 26.40 ft, from floodmarks in gage house, from rating curve extended above 55,000 ft³/s on basis of slope-area measurement at gage height 23.19 ft; minimum discharge, 122 ft³/s Sept. 5, 1953, gage height, 1.11 ft; minimum daily, 126 ft³/s Sept. 4, 1953.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 55,100 ft³/s May 29, gage height, 15.62 ft; minimum, 606 ft³/s Oct. 15, gage height, 2.30 ft; minimum daily, 760 ft³/s Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1380	1420	3590	3100	840	2200	2750	3380	22500	5290	1090	1110
2	1410	1450	2880	2700	960	1900	3100	3040	15400	5740	1110	1310
3	1220	1430	2440	2500	1400	1700	3630	2760	11400	3170	1190	1370
4	1230	1450	2200	2400	1600	1600	4270	5220	8990	2250	1500	1250
5	1430	1480	2150	2300	2300	1500	14000	6970	7040	1800	1520	1010
6	1500	1480	2310	2200	3500	1600	30700	6170	5390	1770	1500	931
7	1460	1540	8220	2200	2700	1500	17600	5530	4310	2770	1360	996
8	1460	1450	7200	2000	2400	1400	12500	5210	3510	2880	1300	1220
9	1450	1440	4710	1800	2000	1300	9510	6660	3000	2170	1210	1270
10	1480	1440	3700	1700	1900	1350	7570	6620	2580	1740	1090	1090
11	1500	1510	3130	1400	1900	1300	6250	5770	2210	1560	1150	913
12	1570	1130	2710	1300	2100	1200	5320	5400	1870	1620	1330	908
13	1460	1640	12800	1200	2500	1190	4590	6470	1660	1720	1380	863
14	1280	1260	39800	1100	5000	1230	4120	7210	1720	1450	1270	1180
15	760	1230	19800	1000	30900	1400	5050	8330	1610	1260	1060	1290
16	1260	1070	10400	960	29700	1800	8760	8040	1390	1170	1330	1350
17	1210	922	6810	880	15000	2000	16800	7100	1260	1220	1390	1080
18	1370	1130	4800	840	9720	2100	14300	6070	1290	1310	1330	1070
19	1590	1410	3400	800	7650	2030	12200	5300	1470	1810	1430	1310
20	1520	1200	2400	780	7560	2290	12600	4730	1340	1460	1340	1280
21	1410	1450	1700	780	6400	2950	10800	5230	1150	1210	1240	1250
22	1500	2150	1800	780	5060	4750	9040	4960	1050	1190	1190	1360
23	1480	1800	2100	820	4180	4650	7810	4300	980	1190	1060	1390
24	1470	1460	1900	920	4160	3790	7130	5340	959	1150	1210	1170
25	1300	2290	1500	1200	3810	3290	6660	4910	1090	1090	1160	1100
26	1340	3980	1600	1700	3500	3290	5950	4190	1200	1010	1220	1100
27	1390	3210	1900	2500	3030	3200	5160	3740	1070	1010	1150	1130
28	1330	2850	2800	1900	2600	3130	4470	3830	962	1940	943	1070
29	1300	3790	4100	1600	2400	3310	3980	32800	1120	1840	1040	1290
30	1330	4530	4300	1600	---	3240	3650	47000	3040	1400	1050	1380
31	1370	---	3600	1100	---	2930	---	34800	---	1200	1020	---
TOTAL	42760	54592	172750	48060	166770	71120	260270	267080	112561	58390	38163	35041
MEAN	1379	1820	5573	1550	5751	2294	8676	8615	3752	1884	1231	1168
MAX	1590	4530	39800	3100	30900	4750	30700	47000	22500	5740	1520	1390
MIN	760	922	1500	780	840	1190	2750	2760	959	1010	943	863

CAL YR 1983 TOTAL 1182968 MEAN 3241 MAX 39800 MIN 561
WTR YR 1984 TOTAL 1327557 MEAN 3627 MAX 47000 MIN 760

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.
CHEMICAL DATA: 1971-73 (a).
NUTRIENT DATA: 1971 (a).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1967 to current year (no winter record for water years 1969-76).

INSTRUMENTATION.--Temperature recorder since October 1967.

REMARKS.--No record June 13 to July 19, Sept. 13-30, due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1968-75, 1980-81, 1983), 32.0°C Aug. 2, 3, 1975, July 10, 1981; minimum (water years 1968, 1977-84), freezing point on many days during winter periods, each year except water years 1980-82.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Minimum, freezing point on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.5	15.0	15.0	7.5	5.0	6.5	4.0	3.5	3.5	.0	.0	.0
2	17.5	15.0	16.0	8.0	6.0	7.0	3.5	2.5	3.0	.0	.0	.0
3	19.0	15.5	17.0	7.5	7.0	7.5	2.5	2.0	2.5	.0	.0	.0
4	19.0	16.0	17.5	7.5	7.0	7.0	2.0	2.0	2.0	.0	.0	.0
5	18.5	17.0	18.0	7.5	6.5	7.0	2.0	1.5	1.5	.0	.0	.0
6	18.5	16.5	17.5	6.0	6.0	6.0	2.5	1.5	2.0	.0	.0	.0
7	17.0	15.0	16.0	7.0	6.0	6.5	2.5	2.5	2.5	.0	.0	.0
8	16.5	14.0	15.5	8.0	6.0	7.0	2.5	1.5	2.0	.0	.0	.0
9	15.0	14.0	14.5	8.0	6.0	7.0	1.5	1.0	1.0	.0	.0	.0
10	15.0	13.0	14.0	7.0	6.5	7.0	1.0	1.0	1.0	.0	.0	.0
11	13.5	12.5	13.0	7.5	7.0	7.5	1.5	1.0	1.5	.0	.0	.0
12	13.5	13.0	13.0	7.0	5.0	6.0	1.5	1.5	1.5	.0	.0	.0
13	15.5	13.5	14.0	5.0	4.0	4.5	3.5	1.5	2.0	.0	.0	.0
14	16.5	14.5	15.5	5.0	3.5	4.0	4.5	3.5	4.0	.0	.0	.0
15	16.0	13.5	14.5	4.5	4.0	4.0	5.0	4.5	4.5	.0	.0	.0
16	15.0	12.0	13.5	5.0	4.0	4.5	5.0	4.5	5.0	.0	.0	.0
17	13.5	12.0	12.5	4.5	3.5	4.0	4.5	3.0	4.0	.0	.0	.0
18	12.5	12.0	12.5	4.0	3.0	3.5	3.0	1.5	2.0	.0	.0	.0
19	14.0	12.0	13.0	5.0	3.5	4.5	1.5	.0	1.0	.0	.0	.0
20	14.0	12.0	12.5	7.0	4.5	5.5	.0	.0	.0	.0	.0	.0
21	13.0	10.5	11.5	8.0	7.0	7.5	.0	.0	.0	.0	.0	.0
22	11.5	10.0	10.5	7.5	6.5	7.0	.0	.0	.0	.0	.0	.0
23	10.0	9.5	9.5	7.5	6.5	7.0	.0	.0	.0	.0	.0	.0
24	10.5	9.5	10.0	7.0	7.0	7.0	.0	.0	.0	.0	.0	.0
25	9.5	9.0	9.5	7.0	5.0	5.5	.0	.0	.0	.0	.0	.0
26	10.0	9.0	9.5	5.0	4.5	4.5	.0	.0	.0	.0	.0	.0
27	9.0	8.0	8.5	4.5	4.5	4.5	.0	.0	.0	.0	.0	.0
28	10.0	7.0	8.5	4.5	4.0	4.0	.0	.0	.0	.0	.0	.0
29	9.5	7.5	8.0	4.0	4.0	4.0	.0	.0	.0	.0	.0	.0
30	8.5	6.0	7.0	4.0	4.0	4.0	.0	.0	.0	.0	.0	.0
31	8.0	5.0	6.5	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	19.0	5.0	12.5	8.0	3.0	5.5	5.0	.0	1.5	.0	.0	.0

01428500 DELAWARE RIVER ABOVE LACKAWAXEN RIVER NEAR BARRYVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	.5	.0	.0	5.5	3.5	4.5	13.0	12.0	12.5
2	.0	.0	.0	.0	.0	.0	6.5	4.5	5.5	13.0	11.5	12.0
3	.0	.0	.0	.0	.0	.0	7.5	6.0	6.5	12.0	11.0	11.5
4	.0	.0	.0	1.0	.0	.5	7.0	6.0	6.5	11.0	10.5	10.5
5	.0	.0	.0	.5	.0	.0	6.0	5.5	5.5	10.5	9.5	10.0
6	.0	.0	.0	.5	.0	.0	5.5	5.0	5.0	11.0	9.5	10.0
7	.0	.0	.0	1.0	.0	.5	5.0	4.5	5.0	11.5	10.5	11.0
8	.0	.0	.0	.5	.0	.0	5.0	4.0	4.5	11.5	11.5	11.5
9	.0	.0	.0	.5	.0	.0	6.0	5.0	5.5	11.5	10.5	11.0
10	.0	.0	.0	.0	.0	.0	6.5	5.5	6.0	10.5	10.0	10.5
11	.0	.0	.0	.0	.0	.0	7.0	5.5	6.5	10.5	9.5	10.0
12	.0	.0	.0	.0	.0	.0	9.0	6.5	7.5	10.5	10.0	10.0
13	.0	.0	.0	.0	.0	.0	9.0	8.0	8.5	11.5	10.5	11.0
14	.0	.0	.0	.0	.0	.0	8.0	7.0	7.5	11.5	10.5	11.0
15	.5	.0	.0	.5	.0	.0	7.0	6.5	6.5	10.0	9.5	9.5
16	3.0	1.0	2.0	1.0	.0	.5	6.5	6.0	6.0	9.5	9.0	9.0
17	3.5	3.0	3.5	1.5	.0	1.0	7.0	6.0	6.5	9.5	8.0	9.0
18	3.5	3.5	3.5	2.0	1.0	1.5	8.0	7.0	7.0	9.5	9.5	9.5
19	3.5	3.5	3.5	3.5	2.0	2.5	8.0	7.0	7.5	11.0	9.5	10.0
20	3.5	3.5	3.5	5.0	2.5	3.5	7.0	6.5	7.0	11.0	11.0	11.0
21	3.5	3.5	3.5	4.0	4.0	4.0	7.5	6.5	6.5	13.0	11.0	12.0
22	3.5	2.5	3.0	4.0	4.0	4.0	7.5	7.0	7.0	16.0	13.0	14.0
23	3.0	2.5	2.5	4.0	3.5	3.5	7.5	6.5	7.0	16.5	16.0	16.0
24	4.5	3.0	3.5	4.0	3.0	3.5	6.5	6.5	6.5	16.0	15.0	15.5
25	4.5	4.0	4.5	4.0	3.5	4.0	6.5	6.5	6.5	16.5	15.0	16.0
26	4.0	2.5	3.0	5.5	4.0	4.5	8.5	6.5	7.5	17.5	16.5	17.0
27	2.5	1.5	2.0	6.0	4.5	5.0	11.5	9.0	10.0	18.0	17.0	17.5
28	1.5	1.0	1.5	5.5	4.0	5.0	11.5	11.0	11.5	17.5	15.0	16.5
29	1.0	1.0	1.0	4.0	2.0	3.0	13.5	11.5	12.5	15.0	12.0	13.0
30	---	---	---	2.0	2.0	2.0	13.5	13.0	13.0	12.0	11.5	12.0
31	---	---	---	4.0	2.0	3.0	---	---	---	11.5	11.5	11.5
MONTH	4.5	.0	1.5	6.0	.0	1.5	13.5	3.5	7.0	18.0	8.0	12.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.0	11.5	11.5	---	---	---	25.5	22.0	24.0	23.5	20.0	22.0
2	14.0	12.0	13.0	---	---	---	26.5	23.5	24.5	22.0	19.5	20.5
3	14.0	13.0	13.5	---	---	---	26.0	24.0	25.0	21.0	19.0	20.0
4	14.5	12.0	13.0	---	---	---	27.0	24.0	25.0	20.5	18.0	19.0
5	16.5	14.0	15.0	---	---	---	25.0	23.0	24.0	19.5	16.5	18.0
6	17.0	16.0	16.5	---	---	---	25.0	21.5	23.5	19.0	15.5	17.0
7	19.5	17.0	18.0	---	---	---	26.0	23.0	24.0	19.5	14.5	17.0
8	21.5	19.5	20.5	---	---	---	27.0	23.0	25.0	19.5	15.0	17.0
9	23.5	21.0	22.0	---	---	---	26.5	24.0	25.0	19.5	16.0	17.5
10	25.0	22.5	23.5	---	---	---	24.5	23.5	24.0	18.5	16.5	17.5
11	26.0	23.0	24.5	---	---	---	24.5	23.0	23.5	20.5	17.0	19.0
12	26.0	22.5	24.0	---	---	---	24.5	22.0	23.5	22.0	18.0	20.0
13	---	---	---	---	---	---	24.5	22.5	23.5	---	---	---
14	---	---	---	---	---	---	25.5	22.5	24.0	---	---	---
15	---	---	---	---	---	---	27.0	23.5	25.0	---	---	---
16	---	---	---	---	---	---	26.5	23.5	25.0	---	---	---
17	---	---	---	---	---	---	26.0	23.0	24.5	---	---	---
18	---	---	---	---	---	---	25.0	21.5	23.5	---	---	---
19	---	---	---	---	---	---	22.5	20.5	21.5	---	---	---
20	---	---	---	24.0	21.0	22.5	22.0	19.0	20.5	---	---	---
21	---	---	---	22.5	21.5	22.0	22.0	18.0	20.0	---	---	---
22	---	---	---	24.5	21.0	23.0	22.5	19.0	21.0	---	---	---
23	---	---	---	26.5	22.5	24.5	23.5	20.5	22.0	---	---	---
24	---	---	---	27.0	24.0	25.0	22.5	20.5	21.5	---	---	---
25	---	---	---	26.5	22.5	24.5	23.0	19.5	21.0	---	---	---
26	---	---	---	25.5	21.0	23.5	23.5	19.5	21.5	---	---	---
27	---	---	---	23.5	20.5	22.0	22.5	20.0	21.5	---	---	---
28	---	---	---	21.5	20.0	20.5	23.0	20.0	21.5	---	---	---
29	---	---	---	22.0	19.5	20.5	24.0	21.5	22.5	---	---	---
30	---	---	---	23.0	19.5	21.5	25.0	22.0	23.5	---	---	---
31	---	---	---	25.0	20.5	22.5	25.5	22.0	23.5	---	---	---
MONTH	26.0	11.5	18.0	27.0	19.5	22.5	27.0	18.0	23.0	23.5	14.5	18.5

01429000 WEST BRANCH LACKAWAXEN RIVER AT PROMPTON, PA

LOCATION.--Lat 41°35'14", long 75°19'38", Wayne County, Hydrologic Unit 02040103, on right bank 500 ft (150 m) downstream from Prompton Lake, 1,500 ft (460 m) upstream from bridge on U.S. Highway 6 at Prompton, and 2,000 ft (610 m) upstream from Van Auken Creek.

DRAINAGE AREA.--59.7 mi² (154.6 km²).

PERIOD OF RECORD.--August 1944 to current year. Prior to October 1952, published as Lackawaxen River at Prompton.

REVISED RECORDS.--WSP 1432: 1948-49. WDR PA-71-1: 1970(M).

GAGE.--Water-stage recorder. Datum of gage is 1,083.78 ft (330.336 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated since 1960 by Prompton Reservior (station 01428900) 500 ft (150 m) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years, 110 ft³/s (3.115 m³/s), 25.04 in/yr (636 mm/yr), adjusted for storage since January 1961.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,860 ft³/s (166 m³/s) Aug. 18, 1955, gage height, 9.24 ft (2.816 m), from rating curve extended above 3,600 ft³/s (102 m³/s); no flow July 26 to Aug. 25, 1960, result of construction work upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of 16.7 ft (5.09 m), from floodmark.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,500 ft³/s (70.8 m³/s) Apr. 5, gage height, 5.74 ft (1.750 m); minimum daily, 8.9 ft³/s (0.25 m³/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	14	161	63	46	105	118	97	587	668	48	21
2	10	13	127	62	44	92	123	85	398	746	44	20
3	9.9	13	105	61	43	83	153	78	279	428	43	19
4	9.6	13	95	61	49	74	228	256	212	255	39	21
5	9.6	13	98	58	72	71	1440	336	167	180	38	22
6	10	13	134	56	80	71	2270	275	133	155	37	23
7	10	13	473	54	76	68	1130	216	109	180	36	25
8	9.9	12	343	50	68	62	633	189	99	159	36	25
9	9.6	12	229	48	64	61	449	218	86	123	35	25
10	9.2	12	171	48	59	55	322	207	70	98	35	25
11	8.9	13	142	47	56	55	247	177	58	82	34	26
12	9.6	15	133	45	67	51	197	163	53	75	34	27
13	12	16	808	43	106	51	160	200	54	68	34	27
14	14	16	1540	43	197	51	143	217	64	58	34	28
15	16	16	871	42	957	50	166	211	61	51	33	27
16	15	19	477	40	1390	52	353	184	50	47	32	26
17	14	22	384	39	852	61	539	158	44	44	31	25
18	14	23	299	39	583	67	441	136	45	48	30	23
19	15	23	218	38	489	76	355	121	54	56	29	23
20	16	23	161	38	466	94	461	110	51	50	29	23
21	15	29	122	38	395	146	403	133	49	47	28	22
22	15	34	106	38	312	213	308	132	43	49	28	21
23	15	36	101	38	245	213	257	124	40	45	28	20
24	17	37	95	36	203	188	231	149	39	43	28	19
25	18	99	83	37	174	167	213	136	39	40	27	18
26	18	150	74	39	152	150	189	118	39	38	26	18
27	17	138	68	41	131	140	159	106	38	44	24	18
28	16	128	66	43	120	136	136	129	37	71	23	16
29	16	195	65	44	117	137	117	1380	41	66	22	16
30	14	208	64	45	---	135	103	1350	404	58	22	16
31	14	---	64	46	---	127	---	873	---	53	22	---
TOTAL	407.3	1368	7877	1420	7613	3102	12044	8264	3443	4125	989	665
MEAN	13.1	45.6	254	45.8	263	100	401	267	115	133	31.9	22.2
MAX	18	208	1540	63	1390	213	2270	1380	587	746	48	28
MIN	8.9	12	64	36	43	50	103	78	37	38	22	16
MEAN‡	14.1	58.5	251	44.0	266	99.8	401	278	111	124	24.9	20.2
CFSM‡	.24	.98	4.20	.74	4.46	1.67	6.72	4.66	1.86	2.08	.42	.34
IN‡	.27	1.11	4.76	.83	5.05	1.89	7.60	5.27	2.10	2.35	.48	.38

CAL YR 1983 TOTAL 40235.4 MEAN 110 MAX 1560 MIN 6.8 MEAN‡ 111 CFMS‡ 1.86 IN‡ 25.25
WTR YR 1984 TOTAL 51317.3 MEAN 140 MAX 2270 MIN 8.9 MEAN‡ 141 CFMS‡ 2.36 IN‡ 32.08

‡ Adjusted for change in contents in Prompton Reservoir.

01429500 DYBERRY CREEK NEAR HONESDALE, PA

LOCATION.--Lat 41°36'25", long 75°16'00", Wayne County, Hydrologic Unit 02040103, on right bank 180 ft (55 m) upstream from unnamed tributary, 1,700 ft (518 m) downstream from General Edgar Jadwin Reservoir, 2.1 mi (3.4 km) north of Honesdale, and 2.6 mi (4.2 km) upstream from mouth.

DRAINAGE AREA.--64.6 mi^2 (167.3 km^2).

PERIOD OF RECORD.--October 1943 to current year. Published as "at Dyberry" October 1943 to September 1959 and as "near Dyberry" October 1959 to September 1961.

REVISED RECORDS.--WSP 1382: 1947(M), 1950(M), 1951-53.

GAGE.--Water-stage recorder. Datum of gage is 970.70 ft (295.869 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1957, nonrecording gage at site 1.9 mi (3.1 km) upstream at datum 13.70 ft (4.176 m) higher.

REMARKS.--Records good. Flow regulated since October 1959 by General Edgar Jadwin Reservoir (station 01429400) 1,700 ft (518 m) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 114 ft^3/s (3.228 m^3/s), 23.90 in/yr (607 mm/yr), adjusted for storage since October 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s (439 m^3/s) July 10, 1952, gage height, 14.6 ft (4.45 m), site and datum then in use, from rating curve extended above 2,500 ft^3/s (71 m^3/s) on basis of slope-area measurement at gage height 13.78 ft (4.200 m), site and datum then in use; no flow Oct. 2, 3, 1968, result of shutoff at General Edgar Jadwin Reservoir.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of 15.86 ft (4.834 m), site and datum then in use, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,810 ft^3/s (51.3 m^3/s) May 30, gage height, 6.20 ft (1.890 m); minimum daily, 5.5 ft.^{3}/s (0.16 m^3/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	11	110	60	43	92	115	85	885	985	34	13
2	7.4	10	87	60	38	82	140	83	316	1290	37	12
3	6.8	10	78	61	40	78	254	81	209	440	50	16
4	6.8	10	78	62	80	72	381	641	171	211	72	35
5	6.3	11	88	63	88	70	1290	366	131	146	45	25
6	6.3	11	236	62	71	68	1840	206	119	130	38	19
7	7.4	11	839	55	59	66	1610	158	98	190	36	15
8	6.8	11	326	47	50	62	997	216	84	123	36	14
9	6.3	10	160	46	49	59	313	372	75	91	31	13
10	6.0	10	126	44	48	56	222	206	66	75	34	12
11	5.5	19	110	43	49	54	168	162	59	74	31	12
12	6.6	27	146	40	59	52	138	164	52	92	36	14
13	10	22	1160	41	136	51	124	186	54	83	38	13
14	19	17	1710	42	363	51	115	222	89	67	32	12
15	17	16	1470	42	1310	52	286	167	64	47	27	13
16	16	35	802	42	1610	56	576	139	51	41	24	13
17	12	37	303	42	1220	64	689	120	46	39	22	11
18	11	28	177	42	574	76	420	108	62	68	20	11
19	18	23	140	42	386	110	359	102	68	63	19	11
20	17	22	90	42	439	175	526	101	52	46	33	10
21	16	29	78	42	329	271	359	177	46	48	24	9.9
22	16	49	76	42	216	332	228	119	38	49	20	9.5
23	17	37	72	42	168	206	191	147	35	39	29	9.1
24	18	37	69	43	174	148	209	192	34	35	27	9.5
25	24	200	67	63	155	135	182	118	52	30	21	9.6
26	19	121	66	60	135	121	148	99	39	36	18	9.1
27	18	106	64	52	115	108	124	90	33	80	17	9.2
28	14	102	63	50	103	108	115	258	30	101	16	9.8
29	13	356	60	46	101	126	104	1480	82	60	15	11
30	11	180	60	44	---	135	100	1770	800	46	14	9.4
31	11	---	60	46	---	117	---	1540	---	39	13	---
TOTAL	375.8	1568	8971	1508	8208	3253	12323	9875	3940	4864	909	390.1
MEAN	12.1	52.3	289	48.6	283	105	411	319	131	157	29.3	13.0
MAX	24	356	1710	63	1610	332	1840	1770	885	1290	72	35
MIN	5.5	10	60	40	38	51	100	81	30	30	13	9.1
MEAN‡	12.1	52.3	289	48.6	284	104	411	335	117	155	29.3	13.0
CFSM‡	.19	.81	4.47	.75	4.40	1.61	6.36	5.19	1.81	2.40	.45	.20
IN‡	.21	.92	5.06	.85	4.98	1.82	7.20	5.87	2.04	2.72	.51	.23

CAL YR 1983 TOTAL 42143.5 MEAN 115 MAX 1710 MIN 4.1 MEAN‡ 115 CFSM‡ 1.78 IN‡ 24.21
WTR YR 1984 TOTAL 56184.9 MEAN 154 MAX 1840 MIN 5.5 MEAN‡ 154 CFSM‡ 2.39 IN‡ 32.41

‡ Adjusted for change in contents in General Edgar Jadwin Reservoir.

01431500 LACKAWAXEN RIVER AT HAWLEY, PA

LOCATION.--Lat 41°28'34", long 75°10'21", Wayne County, Hydrologic Unit 02040103, on left bank at Church Street Bridge in Hawley, 700 ft (213 m) upstream from Wallenpaupack Creek, and 3,000 ft (914 m) downstream from Middle Creek.

DRAINAGE AREA.--290 mi^2 (751 km^2).

PERIOD OF RECORD.--July 1908 to September 1917, August 1938 to current year. Monthly discharge only for some periods, published in WSP 1302. October 1917 to December 1919, gage heights and discharge measurements only, in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 1951: 1938-41. WSP 1302: 1909-17. WSP 1432: 1942. WSP 1502: 1956.

GAGE.--Nonrecording gage, water-stage recorder, and crest-stage gage. Datum of gage is 869.00 ft (264.871 m) National Geodetic Vertical Datum of 1929. Prior to 1938, nonrecording gage at same site and datum. Aug. 10, 1938, to Aug. 19, 1955, water-stage recorder and Aug. 20, 1955, to Feb. 13, 1956, nonrecording gage at site 1,000 ft (305 m) downstream at same datum.

REMARKS.--Records good. Regulation since 1960 by Prompton Reservoir (station 01428900) and, at high flow, since 1959 by General Edgar Jadwin Reservior (station 01429400) located 14.9 mi (24.0 km) and 13.0 mi (20.9 km) upstream, respectively. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--55 years, (water years 1908-17, 1938-84), 484 ft^3/s (13.71 m^3/s), 22.64 in/yr (575 mm/yr), adjusted for storage since October 1959.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 51,900 ft^3/s (1,470 m^3/s) Aug. 19, 1955, gage height, 24.8 ft (7.56 m) at present site, 20.6 ft (6.28 m) at former site, from floodmark, from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of slope-area measurement at gage height 24.2 ft (7.38 m) at present site, 20.1 ft (6.13 m) at former site; minimum daily, 8 ft^3/s (0.23 m^3/s) Sept. 8, 1909.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1936 reached a stage of 19.1 ft (5.82 m) at present site, 13.9 ft (4.24 m) at former site, from floodmarks, discharge, 27,600 ft^3/s (782 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,500 ft^3/s (382 m^3/s) May 29, gage height 12.01 ft (3.661 m); minimum daily, 28 ft^3/s (0.79 m^3/s) Oct. 1, 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	48	686	330	328	560	611	480	4090	4300	160	64
2	36	46	516	325	304	467	744	413	1740	4360	235	59
3	45	46	428	320	331	416	1080	387	1280	2050	229	62
4	42	45	393	310	494	361	1560	2360	1040	1200	259	79
5	38	44	464	300	711	355	6730	1960	802	853	196	82
6	38	44	714	290	612	360	7640	1260	626	733	177	73
7	38	44	1720	280	487	363	3260	979	528	835	153	67
8	34	44	1320	270	381	319	2490	970	442	675	147	64
9	31	44	1000	250	363	322	1700	1420	369	507	140	62
10	29	45	760	230	343	300	1280	1070	311	410	165	61
11	28	63	630	220	352	280	1070	829	266	372	161	61
12	28	85	633	210	521	270	890	742	218	363	162	72
13	36	79	2350	205	769	270	725	819	202	312	167	71
14	71	71	2710	200	1480	270	651	876	297	255	148	68
15	66	68	3410	195	4700	280	966	799	295	220	130	67
16	53	113	1860	190	5410	299	2050	677	280	194	114	65
17	47	148	1330	190	3490	320	2840	592	250	182	102	61
18	44	119	1090	190	2170	370	2010	511	230	233	95	57
19	57	104	884	190	1670	541	1840	469	240	328	92	57
20	70	94	676	190	1890	680	2590	444	215	257	98	57
21	58	222	578	190	1500	996	1870	679	195	206	94	56
22	49	230	517	185	1180	1330	1320	579	167	202	84	53
23	48	179	496	230	976	1060	1110	514	144	175	105	52
24	105	161	444	285	1170	862	1090	784	137	154	116	51
25	104	586	420	473	1040	753	1030	591	187	136	96	50
26	82	693	410	574	839	671	892	508	163	124	85	47
27	72	611	390	518	683	589	749	552	141	220	79	44
28	63	555	380	483	643	581	639	747	123	475	74	42
29	55	1100	370	414	698	673	569	8520	208	329	72	42
30	51	1010	360	390	---	669	514	10300	2680	237	70	42
31	50	---	340	381	---	623	---	7810	---	193	67	---
TOTAL	1596	6741	28279	9008	35535	16210	52510	49641	17866	21090	4072	1788
MEAN	51.5	225	912	291	1225	523	1750	1601	596	680	131	59.6
MAX	105	1100	3410	574	5410	1330	7640	10300	4090	4360	259	82
MIN	28	44	340	185	304	270	514	387	123	124	67	42
MEAN‡	52.5	238	909	289	1230	522	1750	1628	578	669	124	57.6
CFSM‡	.18	.82	3.13	1.00	4.24	1.80	6.03	5.61	1.99	2.31	.43	.20
IN‡	.20	.93	3.55	1.13	4.80	2.04	6.83	6.35	2.26	2.61	.48	.22

CAL YR 1983 TOTAL 175372 MEAN 480 MAX 6000 MIN 22 MEAN‡ 482 CFSM‡ 1.66 IN‡ 22.56
WTR YR 1984 TOTAL 244336 MEAN 668 MAX 10300 MIN 28 MEAN‡ 671 CFSM‡ 2.31 IN‡ 31.42

‡ Adjusted for change in contents in Prompton Reservoir and General Edgar Jadwin Reservoir.

01432000 WALLENPAUPACK CREEK AT WILSONVILLE, PA

LOCATION.--Lat 41°27'33", long 75°11'08", at hydroelectric plant of Pennsylvania Power and Light Co., at lower end of penstock, Pike County, Hydrologic Unit 02040103, at Kimble, 3 mi (5 km) east of dam at Wilsonville, 1.2 mi (1.9 km) south of Hawley.

DRAINAGE AREA.--228 mi² (591 km²).

PERIOD OF RECORD.--October 1909 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1918, 1923-24. WSP 1432: 1920-21. WSP 2102: 1966 (monthy mean).

GAGE.--Daily discharge determined from flow through turbines, computed from records of generator output and flow over roller gates, computed on basis of head on gates. Prior to Nov. 3, 1925, nonrecording gage at site 1,000 ft (300 m) downstream from dam at datum 1,146.78 ft (349.539 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. No flow over spillway or roller gates, except for period May 29 to June 1 when release was made. Flow regulated since 1925, by Lake Wallenpaupack (station 01431700).

COOPERATION.--Records of generator load, operation of power plant, net operating head, water-surface elevations in lake and daily discharges furnished by Pennsylvania Power and Light Co., in connection with a Federal Power Commission project.

AVERAGE DISCHARGE.--75 years, 365 ft³/s (10.34 m³/s), 21.76 in/yr (553 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6,440 ft³/s (182 m³/s) June 30, 1973; no flow at times each year subsequent to Nov. 3, 1925.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	618	137	741	.00	589	2790	.00	1000	.00
2	.00	.00	.00	592	.00	945	364	656	1860	686	770	.00
3	30	.00	.00	603	.00	604	361	586	1860	736	713	.00
4	.00	.00	.00	474	.00	590	384	1200	1850	.00	.00	231
5	.00	.00	469	449	.00	960	927	1820	956	833	.00	232
6	.00	.00	581	444	.00	955	1730	1820	1070	912	595	182
7	.00	.00	807	.00	371	956	1800	1820	1190	490	469	98
8	.00	.00	616	.00	358	934	1820	933	1200	966	672	.00
9	.00	.00	650	584	358	958	1820	951	.00	950	567	.00
10	.00	.00	.00	684	378	620	1820	967	.00	1170	464	108
11	.00	.00	.00	572	.00	589	1820	971	1190	639	.00	115
12	.00	.00	714	848	.00	989	1820	.00	1050	1470	.00	108
13	.00	.00	1190	626	345	942	1820	.00	1110	959	247	111
14	.00	.00	1680	499	590	954	1820	.00	943	705	291	153
15	.00	.00	1700	520	561	943	1810	.00	933	701	284	.00
16	.00	.00	1740	917	990	959	1800	.00	3.0	1120	387	.00
17	.00	.00	1710	789	809	803	928	15	.00	947	242	105
18	.00	.00	1700	899	964	594	936	.00	568	941	.00	103
19	.00	.00	1710	1030	978	710	961	.00	426	934	.00	100
20	.00	.00	1720	1210	978	708	.00	.00	.00	999	248	109
21	.00	.00	1720	898	940	701	.00	.00	.00	.00	239	97
22	.00	.00	1710	605	939	725	.00	.00	.00	.00	224	.00
23	.00	.00	1820	769	969	697	1210	289	.00	952	226	.00
24	61	.00	1820	647	973	.00	1210	.00	.00	951	231	240
25	5.0	.00	1690	669	600	.00	1210	.00	.00	957	.00	277
26	.00	.00	1460	549	585	600	1210	.00	.00	934	.00	109
27	.00	.00	1450	658	934	614	1210	.00	.00	946	239	106
28	.00	.00	941	.00	959	613	.00	.00	74	.00	309	112
29	.00	.00	928	.00	972	626	.00	2010	.00	.00	231	.00
30	.00	459	994	.00	---	609	957	4820	.00	719	452	.00
31	.00	---	582	.00	---	.00	---	4830	---	709	308	---
TOTAL	96.00	459.00	32102.00	17153.00	15688.00	21639.00	31748.00	24277.00	19073.00	22326.00	9408.00	2696.00
MEAN	3.10	15.3	1036	553	541	698	1058	783	636	720	303	89.9
MAX	61	459	1820	1210	990	989	1820	4830	2790	1470	1000	277
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1983 TOTAL 78005.00 MEAN 488 MAX 4140 MIN .00
WTR YR 1984 TOTAL 96665.00 MEAN 537 MAX 4830 MIN .00

LAKES AND RESERVOIRS IN LACKAWAXEN RIVER BASIN

01428900 PROMPTON RESERVOIR.--Lat 41°35'18", long 75°19'39", Wayne County, Hydrologic Unit 02040103, at dam on West Branch Lackawaxen River, 0.3 mi (0.5 km) north of Prompton, 0.4 mi (0.6 km) upstream from highway bridge and 0.5 mi (0.8 km) upstream from Van Auken Creek. DRAINAGE AREA, 59.6 mi^2 (154 km^2). PERIOD OF RECORD, December 1960 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated bedrock spillway at elevation 1,205.00 ft (367.284 m). Storage began July 1960. Capacity at elevation 1,205.00 ft (367.284 m) is 51,700 acre-ft (63.7 hm^3). Ordinary minimum (conservation) pool elevation, 1,125.00 ft (342.900 m), capacity, 3,420 acre-ft (4.22 hm^3). Reservoir is used for flood control and recreation. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD. Maximum contents, 8,170 acre-ft (10.1 hm^3) June 29, 1973, elevation, 1,138.40 ft (346-984 m); minimum (after first filling), 2,920 acre-ft (3.60 hm^3) Sept. 27, 1964, elevation, 1,123.20 ft (342.351 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 4,650 acre-ft (5.73 hm^3) Dec. 13, elevation, 1,129.11 ft (344.153 m); minimum, 3,020 acre-ft (3.72 hm^3) Oct. 3, 11, 12, elevation, 1,123.30 ft (342.382 m).

01429400 GENERAL EDGAR JADWIN RESERVOIR.--Lat 41°36'44", long 75°15'55", Wayne County, Hydrologic Unit 02040103, at dam on Dyberry Creek, 0.45 mi (0.72 km) upstream from unnamed tributary, 2.4 mi (3.9 km) north of Honesdale, and 2.9 mi (4.7 km) upstream from mouth. DRAINAGE AREA, 64.5 mi^2 (167.1 km^2). PERIOD OF RECORD, October 1959 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, concrete spillway at elevation 1,053.00 ft (320.954 m). Storage began in October 1959. Capacity at elevation 1,053.00 ft (320.954 m) is 24,500 acre-ft (30.2 hm^3). Reservoir is used for flood control. Figures given herein represent total contents. Regulation is accomplished by discharge through an ungated tunnel. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 6,520 acre-ft (8.04 hm^3) June 19, 1973, elevation, 1,017.40 ft (310.104 m); no storage many times.

EXTREMES FOR CURRENT YEAR: Maximum contents, 3,525 acre-ft (4.35 hm^3) Apr. 6, elevation, 1007.10 ft (306.964 m); no storage many times.

01431700 LAKE WALLENPAUPACK.--Lat 41°27'35", long 75°11'10", Wayne County, Hydrologic Unit 02040103, at dam on Wallenpaupack Creek, at Wilsonville, 1.2 mi (1.9 km) south of Hawley and 1.5 mi (2.4 km) upstream from mouth. DRAINAGE AREA, 228 mi^2 (591 km^2). PERIOD OF RECORD, January 1926 to current year. GAGE, vertical staff. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Power and Light Co.).

Reservoir formed by concrete gravity-type and earthfill dam, with concrete spillway at elevation 1,176.00 ft (358.445 m) in two sections. Spillway equipped with roller gate, 14 ft (4.3 m) high on each section. Storage began Nov. 3, 1925; water in reservoir first reached minimum pool elevation in January 1926. Total capacity at elevation 1,190.00 ft (362.712 m), top of gates, is 209,300 acre-ft (258 hm^3), of which 108,900 acre-ft (134 hm^3) is controlled storage above elevation 1,170.00 ft (356.616 m), minimum pool (prior to 1984, minimum pool 1,160.00 ft (353.566 m)). Reservoir is used for generation of hydroelectric power. Figures given herein represent usable contents. Records furnished by Pennsylvania Power and Light Co. Records prior to 1984 included 48,900 acre-ft (60.3 hm^3) more usable contents.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 129,300 acre-ft (159 hm^3) Aug. 19-21, 1955, elevation, 1,193.45 ft (363.764 m); minimum (after first filling), 12,280 acre-ft (15.1 hm^3) (old minimum pool) Mar. 28, 1958, elevation, 1,162.60 ft (354.360 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 101,940 acre-ft (126 hm^3) May 29, 30 elevation, 1,188.8 ft (362.354 m); minimum, 37,040 acre-ft (45.7 hm^3) Jan. 27, elevation, 1,177.1 ft (358.78 m).

LAKES AND RESERVIORS IN LACKAWAXEN RIVER BASIN--Continued

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01428900 Prompton Reservoir			01429400 General Edgar Jadwin Reservoir		
Sept. 30	1123.34	3040	--	975.85	0	0
Oct. 31	1123.56	3100	+ 1.0	976.00	0	0
Nov. 30	1126.31	3870	+ 12.9	978.20	0	0
Dec. 31	1125.56	3660	- 3.4	977.61	0	0
CAL YR 1983	--	--	- 0.1	--	--	0
Jan. 31	1125.19	3550	- 1.8	976.91	0	0
Feb. 29	1125.83	3730	+ 3.1	981.00	80	+ 1.4
Mar. 31	1125.80	3720	- 0.2	977.98	0	- 1.3
Apr. 30	1125.83	3730	+ 0.2	978.63	0	0
May 31	1128.19	4390	+ 10.7	993.55	970	+ 15.8
June 30	1127.27	4140	- 4.2	982.60	140	- 13.9
July 31	1125.38	3610	- 8.6	976.30	0	- 2.3
Aug. 31	1123.87	3180	- 7.0	975.94	0	0
Sept. 30	1123.43	3060	- 2.0	976.01	0	0
WTR YR 1984	--	--	0	--	--	- 0
	01431700 Lake Wallenpaupack					
Sept. 30	1178.5	44600	--			
Oct. 31	1179.0	47300	+ 43.9			
Nov. 30	1181.5	60850	+ 228			
Dec. 31	1181.4	60300	- 8.9			
CAL YR 1983	--	--	+ 2.3			
Jan. 31	1177.5	39200	- 343			
Feb. 29	1181.4	60300	+ 367			
Mar. 31	1178.7	45680	- 238			
Apr. 30	1184.6	77060	+ 527			
May 31	1187.8	96160	+ 310			
June 30	1185.3	81980	- 238			
July 31	1182.3	65250	- 272			
Aug. 31	1179.6	50540	- 239			
Sept. 30	1178.8	46220	- 72.6			
WTR YR 1984	--	--	+ 2.2			

01432160 DELAWARE RIVER AT BARRYVILLE, NY

LOCATION.--Lat 41°28'31", long 74°54'46", Pike County, Pa., Hydrologic Unit 02040104, at Shohola-Barryville Bridge at Barryville, just upstream from Halfway Brook, and 1,000 ft upstream from Shohola Brook.

DRAINAGE AREA.--2,659 mi².

PERIOD OF RECORD.--Water years 1958, 1968 to current year.
CHEMICAL DATA: 1958 (d), 1969 (a), 1973 (b), 1974 (d), 1975 (b).
NUTRIENT DATA: 1973 (b), 1974 (d), 1975 (b).
BIOLOGICAL DATA:
Bacteria.--1973 (b), 1974 (d), 1975 (b).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1967 to September 1973, March 1975 to current year.

INSTRUMENTATION.--Temperature recorder since October 1967.

REMARKS.--Unpublished records of daily temperatures for May to September 1964-66 are available in files of the Geological Survey. Temperature probe may be influenced by solar radiation during periods of low flow. Periods of no record Nov. to Jan., Mar. to July, due to loose and/or defective probe.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1968-73, 1976-78, 1980-82), 32.0°C July 20, 21, 1980; minimum, freezing point on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Minimum, freezing point on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.5	15.5	16.0	7.0	5.5	6.5	4.5	3.5	4.0	.0	.0	.0
2	18.0	16.0	17.0	8.0	6.5	7.0	3.0	2.5	3.0	.5	.0	.0
3	19.5	16.5	17.5	8.0	7.5	7.5	2.5	2.5	2.5	.5	.5	.5
4	20.5	16.5	18.0	8.0	6.5	7.0	2.5	2.0	2.0	1.0	.5	.5
5	20.0	17.5	18.5	7.0	6.0	6.5	3.5	2.0	2.5	1.0	.5	.5
6	19.0	17.0	18.0	6.5	6.0	6.5	---	---	---	1.0	.5	.5
7	17.0	15.5	16.5	7.5	6.5	7.0	---	---	---	1.0	.0	.5
8	16.5	14.5	15.5	7.5	6.0	6.5	3.0	1.5	2.0	.0	.0	.0
9	15.5	14.5	15.0	7.5	6.5	7.0	---	---	---	.5	.0	.0
10	15.5	14.0	14.5	7.5	6.5	7.0	2.0	2.0	2.0	.0	.0	.0
11	14.0	13.0	13.5	8.0	7.5	8.0	---	---	---	.5	.0	.0
12	14.5	13.5	14.0	---	---	---	3.0	1.5	2.0	---	---	---
13	16.5	14.5	15.0	5.0	4.0	4.5	4.0	1.5	3.0	---	---	---
14	16.5	14.0	15.5	4.5	3.5	4.0	5.0	4.0	4.5	---	---	---
15	16.5	11.0	13.5	4.5	4.5	4.5	5.5	5.0	5.0	---	---	---
16	14.5	11.0	13.0	6.0	4.5	5.0	---	---	---	---	---	---
17	14.0	12.5	13.0	5.0	3.5	4.5	4.5	3.0	4.0	---	---	---
18	13.5	12.5	13.0	4.0	3.0	3.5	3.0	2.0	2.5	---	---	---
19	13.5	12.5	13.0	5.0	3.5	4.5	2.0	1.0	2.0	---	---	---
20	13.0	12.0	12.5	7.5	5.0	6.0	---	---	---	---	---	---
21	12.0	11.0	11.5	8.0	7.5	7.5	.5	.0	.0	---	---	---
22	11.0	10.5	10.5	7.5	6.5	7.0	1.5	.0	.5	---	---	---
23	10.5	10.0	10.0	7.5	6.5	7.0	1.5	.0	.5	---	---	---
24	11.5	10.0	10.5	7.5	7.0	7.5	.5	.0	.5	.5	.0	.0
25	10.5	9.0	10.0	7.5	5.0	6.0	.0	.0	.0	---	---	---
26	10.5	9.5	10.0	5.0	4.0	4.5	.0	.0	.0	---	---	---
27	9.0	8.0	9.0	5.0	4.0	4.5	.0	.0	.0	---	---	---
28	9.0	7.5	8.5	4.5	4.0	4.5	.5	.0	.0	---	---	---
29	9.5	7.0	8.5	4.5	4.0	4.0	1.0	.0	.5	---	---	---
30	7.5	6.5	7.0	5.0	3.5	4.0	.0	.0	.0	---	---	---
31	7.0	5.5	6.5	---	---	---	.0	.0	.0	---	---	---
MONTH	20.5	5.5	13.0	8.0	3.0	6.0	5.5	.0	1.5	1.0	.0	.0

01432160 DELAWARE RIVER AT BARRYVILLE, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	.0	.0	.0	1.5	.5	1.0	---	---	---	---	---	---
2	.5	.0	.0	1.5	.0	.5	---	---	---	---	---	---
3	.5	.0	.0	1.5	.0	1.0	7.0	5.0	6.0	11.5	10.5	11.0
4	.5	.0	.0	2.0	.0	1.0	---	---	---	11.0	10.5	10.5
5	.0	.0	.0	2.0	.0	1.0	---	---	---	11.0	10.0	10.5
6	.5	.0	.0	2.0	1.5	2.0	5.0	4.5	5.0	12.0	10.0	11.0
7	.0	.0	.0	2.5	1.0	1.5	4.5	4.0	4.5	12.5	10.5	11.5
8	.0	.0	.0	1.5	.0	.5	5.5	4.0	4.5	12.0	11.5	12.0
9	.5	.0	.0	1.5	.0	.5	6.5	4.5	5.5	12.0	11.5	11.5
10	.5	.0	.0	1.5	.0	.5	6.5	5.0	5.5	12.0	10.5	11.0
11	1.0	.5	.5	1.5	.0	.5	7.5	5.5	6.5	12.0	10.5	11.0
12	1.0	.5	.5	1.5	.0	.5	9.0	6.0	7.5	12.5	11.5	11.5
13	2.0	.5	1.0	1.0	.0	.0	8.0	7.5	7.5	13.5	11.5	12.5
14	1.5	.5	1.0	1.5	.0	1.0	7.5	6.5	7.0	13.0	11.5	12.0
15	1.5	.0	.5	3.5	.5	2.0	6.5	6.5	6.5	11.0	9.5	10.5
16	3.0	1.5	2.5	---	---	---	6.5	6.5	6.5	10.5	9.5	10.0
17	3.5	3.0	3.5	---	---	---	7.5	6.5	7.0	11.0	8.5	9.5
18	4.0	3.5	3.5	---	---	---	8.5	7.0	7.5	10.5	9.5	10.0
19	4.0	3.5	4.0	---	---	---	8.5	6.0	8.0	12.0	10.0	10.5
20	4.0	3.5	3.5	---	---	---	7.5	7.5	7.5	12.5	12.0	12.0
21	3.5	3.0	3.5	---	---	---	---	---	---	14.0	12.0	13.0
22	4.0	2.5	3.0	---	---	---	---	---	---	17.5	13.5	15.0
23	4.0	2.5	3.0	4.0	3.0	3.5	---	---	---	17.5	16.0	17.0
24	5.0	3.5	4.5	4.5	2.5	3.5	---	---	---	17.5	15.5	16.5
25	5.0	4.0	4.5	5.0	3.0	4.0	7.5	7.0	7.0	18.0	15.5	17.0
26	3.5	2.5	3.0	---	---	---	10.0	7.0	8.5	18.5	17.0	18.0
27	2.5	1.5	2.0	---	---	---	---	---	---	19.0	17.5	18.5
28	2.5	1.5	2.0	---	---	---	---	---	---	18.0	15.5	17.0
29	2.5	1.5	2.0	3.0	1.0	2.0	---	---	---	15.5	13.0	13.5
30	---	---	---	3.0	2.0	2.5	---	---	---	13.0	12.5	13.0
31	---	---	---	---	---	---	---	---	---	13.0	12.0	12.5
MONTH	5.0	.0	1.5	5.0	.0	1.5	10.0	4.0	6.5	19.0	8.5	12.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	13.5	12.0	12.5	---	---	---	25.5	21.0	23.0	23.0	18.5	20.5
2	14.5	13.0	13.5	---	---	---	25.5	21.5	23.0	21.0	19.0	20.0
3	14.0	13.5	13.5	---	---	---	25.0	22.0	23.0	21.0	19.0	20.0
4	15.5	12.5	14.0	---	---	---	26.5	22.5	24.5	20.5	19.0	19.5
5	17.5	14.5	15.5	---	---	---	25.5	23.5	24.5	19.5	16.5	18.0
6	18.0	16.0	17.0	---	---	---	24.5	22.5	23.0	19.0	14.5	17.0
7	20.0	16.5	18.5	---	---	---	24.5	22.5	23.0	20.0	14.5	16.5
8	21.5	18.0	19.5	---	---	---	26.0	23.0	24.0	19.0	15.0	17.0
9	24.0	19.0	21.5	---	---	---	25.5	22.5	23.5	19.5	16.0	17.5
10	26.0	22.5	24.0	---	---	---	24.0	22.0	23.0	19.0	16.5	17.5
11	---	---	---	22.5	18.0	20.0	25.0	22.0	23.0	22.5	17.0	19.0
12	---	---	---	22.5	20.0	21.5	24.5	22.5	23.5	22.0	18.0	19.5
13	---	---	---	23.5	20.5	22.0	25.0	23.0	24.0	22.5	16.5	19.0
14	---	---	---	25.0	20.5	22.5	25.0	22.5	24.0	20.0	19.0	19.5
15	---	---	---	26.0	22.5	24.0	26.5	22.5	24.5	19.0	16.5	18.0
16	---	---	---	26.5	23.0	24.5	26.0	22.5	24.5	17.0	15.0	16.0
17	---	---	---	26.0	22.0	24.0	25.5	22.0	24.0	17.5	14.0	15.5
18	---	---	---	24.0	22.0	22.5	24.5	21.0	23.0	19.0	13.5	16.0
19	---	---	---	23.5	20.5	22.0	22.0	20.5	21.5	17.0	14.5	16.0
20	---	---	---	23.0	20.0	21.5	22.0	19.5	21.0	18.5	15.5	17.0
21	---	---	---	22.5	20.5	21.5	22.0	18.0	20.0	18.5	16.0	17.0
22	---	---	---	25.0	21.5	23.0	22.5	19.0	20.5	18.0	15.5	17.0
23	---	---	---	25.5	23.0	24.0	23.0	20.0	21.5	19.0	16.5	17.5
24	---	---	---	26.0	22.0	24.0	21.5	20.0	21.0	20.0	18.0	18.5
25	---	---	---	25.0	21.0	23.0	22.5	19.0	21.0	21.0	18.0	19.0
26	---	---	---	25.0	19.5	22.0	24.0	19.5	21.5	19.5	17.0	18.5
27	---	---	---	22.0	19.0	20.5	22.5	20.0	21.0	16.5	14.5	15.5
28	---	---	---	21.5	18.5	20.0	24.5	18.5	21.5	14.0	13.0	13.5
29	---	---	---	22.5	19.5	21.0	24.5	20.5	22.5	13.5	12.0	13.0
30	23.0	19.0	20.5	22.5	20.5	21.5	25.5	21.5	23.0	14.0	11.5	13.0
31	---	---	---	24.0	20.0	22.0	24.5	20.5	22.0	---	---	---
MONTH	26.0	12.0	17.5	26.5	18.0	22.0	26.5	18.0	22.5	23.0	11.5	17.5

01432805 DELAWARE RIVER AT POND EDDY, NY

LOCATION.--Lat 41°26'20", long 74°49'11", Pike County, Pa., Hydrologic Unit 02040104, at interstate bridge at Pond Eddy, 450 ft downstream from Mill Brook, and 4.5 mi upstream from Mongaup River.

DRAINAGE AREA.--2,820 mi².

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1973 to current year.

INSTRUMENTATION.--Temperature recorder since October 1973.

REMARKS.--Temperature probe may be influenced by solar radiation during periods of low flow. No record July 12-19, Sept. 21-30, due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1976, 1978, 1980-81, 1983-84) 31.0°C July 21, 1980; minimum (water years 1974, 1977-78, 1980, 1983-84), freezing point on many days during winter periods, except 1978 and 1980.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5°C Aug. 8, 15-16; minimum, freezing point on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	15.5	16.0	7.5	6.5	7.0	4.0	4.0	4.0	.0	.0	.0
2	18.0	16.0	17.0	8.0	6.5	7.0	4.0	3.5	3.5	.0	.0	.0
3	19.5	16.5	17.5	8.0	7.5	7.5	3.5	3.0	3.0	.0	.0	.0
4	19.5	17.0	18.5	8.0	7.5	7.5	3.0	2.0	2.5	.0	.0	.0
5	20.0	18.0	19.0	7.5	6.5	7.0	2.5	2.0	2.0	.0	.0	.0
6	19.0	17.5	18.5	7.0	6.5	7.0	3.5	2.5	3.0	.0	.0	.0
7	18.0	16.0	17.0	7.0	6.5	7.0	3.5	3.5	3.5	.0	.0	.0
8	17.5	15.0	16.0	7.5	7.0	7.5	3.5	2.5	2.5	.0	.0	.0
9	16.0	15.0	15.5	8.0	7.5	7.5	2.5	1.5	1.5	.0	.0	.0
10	15.5	14.0	14.5	7.5	7.5	7.5	1.5	1.5	1.5	.0	.0	.0
11	14.0	13.5	14.0	8.0	7.5	8.0	1.5	1.5	1.5	.0	.0	.0
12	14.5	13.5	14.0	8.0	6.0	7.0	1.5	1.5	1.5	.0	.0	.0
13	15.5	14.5	15.0	5.5	5.0	5.0	3.0	1.5	2.0	.0	.0	.0
14	17.0	15.0	16.0	5.0	4.5	4.5	4.5	3.0	4.0	.0	.0	.0
15	16.0	14.0	14.5	4.5	4.5	4.5	4.5	4.0	4.5	.0	.0	.0
16	15.0	13.0	13.5	5.0	4.5	5.0	4.5	4.5	4.5	.0	.0	.0
17	13.5	13.0	13.5	5.0	4.5	5.0	4.5	3.5	4.0	.0	.0	.0
18	13.5	13.0	13.0	4.5	4.0	4.0	3.5	2.5	2.5	.0	.0	.0
19	14.5	12.5	13.5	4.5	4.0	4.5	2.5	1.0	1.5	.0	.0	.0
20	14.0	12.5	13.0	6.5	4.5	5.5	1.0	.0	.5	.0	.0	.0
21	13.0	11.5	12.0	8.0	6.5	7.5	.0	.0	.0	.0	.0	.0
22	11.5	10.5	11.0	8.0	7.5	7.5	.0	.0	.0	.0	.0	.0
23	10.5	10.5	10.5	7.5	7.0	7.5	.0	.0	.0	.0	.0	.0
24	11.0	10.5	10.5	7.5	7.0	7.5	.0	.0	.0	.0	.0	.0
25	11.0	10.0	10.0	7.5	5.5	6.5	.0	.0	.0	.0	.0	.0
26	10.5	9.5	10.0	5.5	5.0	5.0	.0	.0	.0	.0	.0	.0
27	10.0	9.0	9.5	5.0	5.0	5.0	.0	.0	.0	.0	.0	.0
28	10.0	8.0	9.0	5.0	4.5	4.5	.0	.0	.0	.0	.0	.0
29	9.5	8.5	9.0	4.5	4.5	4.5	.0	.0	.0	.0	.0	.0
30	8.5	7.5	8.0	4.5	4.0	4.0	.0	.0	.0	.0	.0	.0
31	8.0	6.5	7.0	---	---	---	.0	.0	.0	.0	.0	.0
MONTH	20.0	6.5	13.5	8.0	4.0	6.0	4.5	.0	1.5	.0	.0	.0

01432805 DELAWARE RIVER AT POND EDDY, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	.0	.0	.0	1.5	.5	.5	5.0	2.5	4.0	13.0	11.0	12.0
2	.0	.0	.0	.5	.0	.0	6.0	4.0	5.0	12.5	10.5	11.5
3	.0	.0	.0	.5	.0	.5	7.0	4.5	6.0	12.0	10.5	11.0
4	.0	.0	.0	.5	.0	.5	6.5	5.0	5.5	10.5	10.0	10.0
5	.0	.0	.0	1.0	.0	.5	5.0	4.5	5.0	10.0	9.5	10.0
6	.0	.0	.0	1.5	.0	1.0	4.5	4.5	4.5	11.0	9.5	10.0
7	.0	.0	.0	1.5	1.0	1.5	4.5	4.0	4.0	11.5	10.0	11.0
8	.0	.0	.0	1.5	.5	.5	5.0	3.5	4.5	11.5	11.0	11.5
9	.0	.0	.0	.5	.0	.5	6.0	4.5	5.0	11.5	10.5	11.0
10	.0	.0	.0	.5	.0	.5	6.5	5.0	5.5	11.0	10.0	10.5
11	.0	.0	.0	.5	.0	.5	7.5	5.5	6.0	11.0	10.0	10.5
12	.0	.0	.0	.5	.0	.0	8.5	6.5	7.5	11.0	10.5	10.5
13	.0	.0	.0	.0	.0	.0	8.5	7.5	8.0	12.0	10.5	11.0
14	.0	.0	.0	.5	.0	.0	7.5	6.5	7.0	12.0	11.0	11.5
15	.0	.0	.0	3.0	.5	1.5	6.5	6.0	6.0	10.5	9.5	9.5
16	3.0	.5	1.5	2.5	1.0	2.0	6.0	6.0	6.0	9.5	9.0	9.0
17	3.5	3.0	3.0	2.5	1.5	2.0	7.0	6.0	6.5	10.0	8.0	9.0
18	3.5	3.5	3.5	2.5	2.0	2.5	8.0	6.5	7.0	10.0	9.0	9.5
19	3.5	3.5	3.5	3.5	2.5	3.0	8.0	7.0	7.5	11.0	9.5	10.0
20	3.5	3.5	3.5	4.5	3.0	4.0	7.0	6.5	7.0	12.0	11.0	11.0
21	3.5	3.0	3.0	4.5	4.0	4.0	8.0	6.0	7.0	13.5	11.5	12.0
22	3.0	2.5	3.0	4.0	3.5	3.5	7.5	6.5	7.0	16.5	13.0	14.0
23	3.5	2.5	3.0	3.5	3.5	3.5	7.5	6.5	7.0	17.5	16.0	16.5
24	4.5	3.5	4.0	4.0	2.5	3.5	6.5	6.0	6.5	17.0	15.0	16.0
25	4.5	4.0	4.5	4.5	3.0	4.0	6.5	6.0	6.5	17.5	15.5	16.5
26	4.0	3.0	3.0	5.5	3.5	4.5	9.0	6.0	7.0	18.5	16.5	17.5
27	3.0	2.0	2.0	6.0	3.5	5.0	11.0	8.0	9.0	19.0	17.0	18.0
28	2.0	1.5	1.5	5.5	3.5	5.0	11.5	10.0	11.0	18.5	15.5	17.0
29	1.5	1.5	1.5	3.5	1.5	2.0	14.0	11.0	12.5	15.5	12.5	13.5
30	---	---	---	2.0	1.5	1.5	14.0	12.5	13.0	12.5	12.0	12.0
31	---	---	---	3.5	2.0	2.5	---	---	---	12.0	11.5	11.5
MONTH	4.5	.0	1.5	6.0	.0	2.0	14.0	2.5	7.0	19.0	8.0	12.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	13.0	11.5	12.0	20.0	18.5	19.5	24.5	22.0	23.5	24.5	21.0	22.5
2	14.5	12.5	13.0	20.0	18.0	19.0	25.0	22.5	24.0	23.0	21.0	21.5
3	14.0	13.5	13.5	21.0	19.5	20.5	25.0	23.0	24.0	23.0	20.5	21.5
4	14.5	12.5	13.5	22.5	20.0	21.0	26.5	23.0	24.5	22.0	20.5	21.5
5	17.0	14.0	15.0	23.0	22.0	22.5	26.0	24.5	25.5	21.0	18.5	19.5
6	17.5	16.0	16.5	22.5	21.0	22.0	25.5	24.0	24.5	20.0	17.0	18.0
7	20.0	17.0	18.0	21.0	19.5	20.5	25.5	23.5	24.5	20.5	16.0	17.5
8	22.0	18.5	20.0	20.5	18.5	20.0	27.5	23.5	25.0	20.5	16.5	18.0
9	24.0	19.5	21.0	20.0	18.0	19.0	27.0	24.0	25.5	20.5	17.0	18.5
10	25.5	23.0	24.0	19.5	18.5	19.0	25.5	24.0	24.5	19.5	18.0	18.5
11	25.5	24.0	25.0	21.5	19.0	20.0	25.0	23.0	24.0	22.5	18.0	20.0
12	24.5	20.5	23.0	---	---	---	25.5	24.0	24.5	23.0	19.5	21.0
13	24.0	21.0	22.5	---	---	---	26.5	24.0	25.0	22.0	19.5	20.5
14	23.5	21.0	22.0	---	---	---	26.5	24.5	25.5	21.5	20.0	20.5
15	22.5	19.5	21.0	---	---	---	27.5	25.0	26.0	20.5	18.0	19.5
16	20.5	17.5	19.0	---	---	---	27.5	25.0	26.0	18.5	16.0	17.0
17	20.5	19.5	20.0	---	---	---	26.5	24.5	25.5	18.5	15.0	16.5
18	19.5	19.0	19.0	---	---	---	26.0	23.0	24.5	19.0	15.0	16.5
19	22.5	18.0	20.0	---	---	---	24.0	22.0	23.0	18.5	15.5	16.5
20	23.0	20.0	21.5	23.0	21.0	22.0	24.0	20.5	22.0	20.0	16.0	17.5
21	25.0	21.0	22.5	22.5	21.0	21.5	23.5	20.0	21.5	---	---	---
22	25.5	21.5	23.0	24.5	21.0	22.5	24.0	20.5	22.0	---	---	---
23	25.0	22.0	23.5	26.0	23.0	24.5	24.0	21.5	22.5	---	---	---
24	23.5	21.5	22.5	25.0	23.0	24.5	23.0	21.5	22.0	---	---	---
25	24.5	20.5	22.0	25.0	22.0	23.5	23.5	20.5	22.0	---	---	---
26	24.0	21.5	22.5	23.5	21.0	22.5	25.0	21.0	22.5	---	---	---
27	24.5	20.5	22.5	23.0	20.0	21.0	24.0	21.5	22.5	---	---	---
28	25.5	22.0	23.5	21.5	19.0	20.0	24.5	21.5	22.5	---	---	---
29	26.0	23.5	24.5	22.0	20.5	21.5	24.5	22.5	23.5	---	---	---
30	24.0	20.0	22.0	23.0	21.0	22.0	26.0	23.0	24.5	---	---	---
31	---	---	---	24.0	21.0	22.5	25.5	23.0	24.5	---	---	---
MONTH	26.0	11.5	20.5	26.0	18.0	21.5	27.5	20.0	24.0	24.5	15.0	19.0

01434000 DELAWARE RIVER AT PORT JERVIS, NY

LOCATION.--Lat 41°22'14", long 74°41'52", Pike County, Pa., Hydrologic Unit 02040104, on right bank 250 ft downstream from bridge (on U.S. Highways 6 and 209) between Port Jervis, N.Y. and Matamoras, Pa., 1.2 mi upstream from Neversink River, and 6.5 mi downstream from Mongaup River. Water-quality sampling site at discharge station.

DRAINAGE AREA.--3,070 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1904 to current year.

REVISED RECORDS.--WSP 1031: 1905-36. WDR NY-71-1: 1970. WDR NY-82-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 415.35 ft National Geodetic Vertical Datum of 1929. October 1904 to August 13, 1928, nonrecording gage at bridge 250 ft upstream at present datum; operated by U.S. Weather Bureau prior to June 20, 1914.

REMARKS.--Records good. Flow regulated by Lake Wallenpaupack and by Toronto, Cliff Lake, and Swinging Bridge Reservoirs (see Reservoirs in Delaware River Basin) and smaller reservoirs. Large diurnal fluctuations at medium and low flows caused by powerplants on tributary streams. Subsequent to September 1954, entire flow from 371 mi² of drainage area controlled by Pepacton Reservoir, and subsequent to October 1963, entire flow from 454 mi² of drainage area controlled by Cannonsville Reservoir (see Reservoirs in Delaware River Basin). Part of flow from these reservoirs diverted for New York City municipal supply. Remainder of flow (except for conservation releases and spill) impounded for release during periods of low flow in the lower Delaware River basin, as directed by the Delaware River Master.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 233,000 ft³/s Aug. 19, 1955, gage height, 23.91 ft, from floodmarks in gage house, from rating curve extended above 89,000 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 26.6 ft Feb. 12, 1981 (ice jam), from floodmarks; minimum observed discharge, 175 ft³/s Sept. 23, 1908, gage height, 0.6 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--The U.S. Weather Bureau reported a discharge of 205,000 ft³/s Oct. 10, 1903, gage height, 23.1 ft, from rating curve extended above 70,000 ft³/s by velocity-area studies; stage on Mar. 8, 1904 was 25.5 ft, ice jam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 84,400 ft³/s May 30, gage height, 14.04 ft; minimum, 759 ft³/s Oct. 16, gage height, 1.71 ft; minimum daily, 1,120 ft³/s Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1590	1560	5750	4090	1700	5900	4700	6050	35500	8410	2530	1540
2	1620	1580	4660	3490	1600	5190	5430	5230	22900	14400	2970	1540
3	1480	1580	3760	3420	1700	4690	6290	4760	17500	8380	2730	1590
4	1290	1580	3370	3430	1600	4120	7890	9490	14500	5560	2620	1740
5	1510	1580	3620	3040	2000	4270	28300	13300	11200	4570	2110	1770
6	1640	1580	4130	2960	2900	4370	52300	11500	9060	4600	2310	1600
7	1710	1640	11000	2610	3420	4670	31500	10400	7780	8450	2740	1640
8	1580	1610	12300	2100	3350	3990	21400	8970	6760	7780	2730	1540
9	1540	1530	8490	2400	2610	3690	16100	10500	5480	6080	2830	1580
10	1540	1530	6450	2500	2740	3230	13200	10600	4240	5160	2200	1520
11	1570	1730	4980	2700	2080	2760	11400	9260	4090	4640	2030	1490
12	1830	1500	4730	2500	2180	2830	10000	7760	4310	4480	1650	1510
13	1660	1780	17100	3000	3030	3270	8880	8050	3980	4360	1880	1490
14	1510	1590	56900	2600	5600	3320	8020	8870	4110	3970	2180	1730
15	1130	1430	34400	2200	34500	3430	8780	10300	3940	3330	1920	1730
16	1120	1460	19800	2200	42500	4080	13200	9850	3360	3240	1840	1770
17	1280	1440	13500	2500	23000	4760	22700	8700	2440	3420	2230	1580
18	1370	1280	10600	2400	15600	4110	19700	7800	2650	3650	1990	1450
19	1740	1680	8850	2400	12700	4550	16800	6640	3110	4120	1690	1710
20	1710	1610	7180	2500	12800	4890	17300	5830	2860	3880	1710	1660
21	1670	1730	6510	2100	11400	5710	15100	6280	1890	3020	1840	1610
22	1760	2610	5550	1900	9320	8410	12500	6570	1630	1820	1970	1670
23	1640	2610	5880	1900	7960	8320	11500	5800	1550	2060	1750	1620
24	1730	2050	5890	1900	8390	6600	11200	6960	1720	3010	1800	1540
25	1690	2850	5390	2200	8150	5480	10600	6680	1840	2620	1770	1690
26	1530	5550	4590	2200	7150	5750	9740	5700	1890	2230	1490	1720
27	1610	4850	4320	2900	6410	5590	8690	5430	1640	2340	1560	1690
28	1510	4340	3960	2800	6170	5480	7300	4830	1420	3100	1700	1490
29	1460	5370	4430	2100	6490	6010	5940	39900	1490	2940	1800	1520
30	1460	7320	5560	1600	---	5980	5870	75300	4460	2500	1750	1560
31	1450	---	5150	1400	---	5170	---	55400	---	2780	2040	---
TOTAL	47930	70550	298800	78040	249050	150620	422330	392710	189300	140900	64360	48290
MEAN	1546	2352	9639	2517	8588	4859	14080	12670	6310	4545	2076	1610
MAX	1830	7320	56900	4090	42500	8410	52300	75300	35500	14400	2970	1770
MIN	1120	1280	3370	1400	1600	2760	4700	4760	1420	1820	1490	1450

CAL YR 1983 TOTAL 1952960 MEAN 5351 MAX 56900 MIN 1020
WTR YR 1984 TOTAL 2152880 MEAN 5882 MAX 75300 MIN 1120

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-60, 1964 to current year.
CHEMICAL DATA: 1958-59 (e), 1964-65 (c), 1966 (a), 1967-68 (c), 1969-76 (d).
MINOR ELEMENTS DATA: 1970 (a), 1972-73 (a), 1974-76 (c).
PESTICIDE DATA: 1974 (a).
ORGANIC DATA: OC--1974 (b), 1975 (d).
NUTRIENT DATA: 1968 (a), 1969-76 (d).
BIOLOGICAL DATA:
Bacteria--1973-76 (d).
Phytoplankton--1974 (b), 1975-76 (c).
Periphyton--1976 (a).
SEDIMENT DATA: 1959 (c), 1976 (c).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1973 to September 1973.
WATER TEMPERATURES: February 1957 to September 1960, January 1973 to September 1973, June 1974 to current year.
SUSPENDED-SEDIMENT DISCHARGE: February 1957 to September 1960, March 1970 to June 1976.

INSTRUMENTATION.--Temperature recorder since January 1973.

REMARKS.--No temperature record Sept. 24-30, due to instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum (water years 1957-59, 1973-81, 1983-84), 30.0°C July 13, 1981; minimum (water years 1958-60, 1973, 1975-84), freezing point on many days during winter periods, except 1984.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 27.5°C Aug. 15-17; minimum, 1.0°C on many days during winter period.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	16.5	16.0	16.5	7.5	6.5	7.0	5.0	4.0	4.5	1.0	1.0	1.0
2	18.0	16.5	17.5	8.0	7.0	7.5	4.0	3.5	4.0	1.0	1.0	1.0
3	19.0	17.0	18.0	8.5	8.0	8.0	4.0	3.5	3.5	1.0	1.0	1.0
4	19.0	17.5	18.5	8.5	7.5	8.0	3.0	3.0	3.0	1.5	1.0	1.0
5	20.0	18.5	19.5	7.5	6.5	7.0	3.5	3.0	3.5	1.5	1.5	1.5
6	19.5	18.5	19.0	7.0	6.0	6.5	4.5	3.5	4.0	2.0	1.5	1.5
7	18.0	17.0	17.5	8.0	6.5	7.5	4.5	4.0	4.0	1.5	1.0	1.5
8	17.0	15.5	16.5	8.0	6.5	7.5	4.0	3.0	3.5	1.0	1.0	1.0
9	16.5	15.5	16.0	8.0	7.0	7.5	3.0	2.5	2.5	1.0	1.0	1.0
10	15.5	14.5	15.0	8.0	7.0	7.5	3.5	2.5	3.0	1.5	1.0	1.0
11	15.0	14.0	14.0	8.5	8.0	8.5	3.0	2.5	3.0	1.0	1.0	1.0
12	15.0	14.0	14.5	8.5	6.0	7.0	3.0	2.5	2.5	1.0	1.0	1.0
13	16.0	15.0	15.5	5.5	4.5	5.0	4.5	3.0	4.0	1.0	1.0	1.0
14	16.5	15.5	16.0	5.5	4.5	5.0	5.5	4.5	5.5	1.0	1.0	1.0
15	15.5	14.0	14.5	5.5	5.0	5.0	6.0	5.5	6.0	1.0	1.0	1.0
16	14.5	13.0	14.0	6.0	5.0	5.5	6.0	5.5	6.0	1.0	1.0	1.0
17	13.5	13.0	13.5	6.0	5.0	5.5	5.5	4.0	5.0	1.0	1.0	1.0
18	13.5	13.0	13.5	5.0	4.5	4.5	4.0	3.0	3.5	1.0	1.0	1.0
19	14.0	13.0	13.5	5.0	4.5	5.0	3.0	1.5	2.5	1.0	1.0	1.0
20	13.5	12.5	13.0	7.5	5.5	6.5	1.5	1.0	1.0	1.0	1.0	1.0
21	12.5	11.0	12.0	8.5	8.0	8.0	1.0	1.0	1.0	1.0	1.0	1.0
22	11.5	10.5	11.0	8.5	7.5	8.0	1.5	1.0	1.0	1.0	1.0	1.0
23	11.0	10.5	10.5	8.0	7.5	8.0	1.5	1.0	1.0	1.0	1.0	1.0
24	11.5	10.5	11.0	8.5	7.5	8.0	1.0	1.0	1.0	1.0	1.0	1.0
25	11.0	10.0	10.5	8.5	6.0	7.0	1.0	1.0	1.0	1.0	1.0	1.0
26	10.5	10.0	10.0	6.0	5.5	5.5	1.0	1.0	1.0	1.0	1.0	1.0
27	10.0	9.0	9.5	5.5	5.0	5.5	1.0	1.0	1.0	1.0	1.0	1.0
28	10.0	8.0	9.0	5.5	5.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0
29	10.0	8.5	9.5	5.5	5.0	5.0	1.0	1.0	1.0	1.0	1.0	1.0
30	8.5	7.5	8.0	5.0	4.5	4.5	1.0	1.0	1.0	1.0	1.0	1.0
31	8.0	7.0	7.5	---	---	---	1.0	1.0	1.0	1.0	1.0	1.0
MONTH	20.0	7.0	13.5	8.5	4.5	6.5	6.0	1.0	3.0	2.0	1.0	1.0

01434000 DELAWARE RIVER AT PORT JERVIS, NY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	1.0	1.0	2.5	1.5	2.0	6.5	4.5	5.5	14.0	13.0	13.5
2	1.0	1.0	1.0	2.0	1.0	1.5	7.0	5.5	6.5	14.0	12.5	13.5
3	1.0	1.0	1.0	2.5	1.0	2.0	8.0	6.5	7.0	13.5	12.5	12.5
4	1.5	1.0	1.0	3.0	1.0	2.0	7.5	6.5	7.0	12.5	11.5	12.0
5	1.0	1.0	1.0	2.0	1.5	2.0	6.5	6.0	6.5	12.0	11.0	11.5
6	1.0	1.0	1.0	3.5	1.5	2.5	6.5	6.0	6.0	12.5	11.0	12.0
7	1.0	1.0	1.0	3.5	2.0	3.0	6.0	5.5	5.5	13.0	12.0	12.5
8	1.0	1.0	1.0	2.5	1.0	2.0	6.5	5.0	5.5	13.0	12.5	13.0
9	1.0	1.0	1.0	2.5	1.0	1.5	7.5	6.0	6.5	13.0	12.5	12.5
10	1.5	1.0	1.0	2.5	1.0	1.5	7.5	6.5	7.0	12.5	11.5	12.0
11	1.5	1.0	1.5	2.5	1.0	1.5	8.5	7.0	7.5	12.5	11.5	12.0
12	2.0	1.0	1.5	2.0	1.0	1.5	9.5	8.0	9.0	13.0	12.0	12.5
13	2.0	1.0	1.5	1.5	1.0	1.0	9.5	9.0	9.5	14.0	12.0	13.0
14	1.5	1.0	1.5	3.0	1.0	1.5	9.0	8.0	8.5	13.5	12.5	13.0
15	1.5	1.0	1.0	4.0	1.5	3.0	8.0	7.5	7.5	12.5	11.0	11.5
16	4.0	1.5	3.0	4.0	3.0	3.5	7.5	7.5	7.5	11.5	10.5	11.0
17	5.0	4.0	4.5	4.5	3.5	3.5	8.5	7.5	8.0	11.5	10.0	10.5
18	5.0	4.5	5.0	4.5	3.5	4.0	9.5	8.5	8.5	11.0	10.5	11.0
19	5.0	4.5	4.5	5.5	3.5	4.5	9.5	9.0	9.0	12.5	11.0	11.5
20	5.0	4.5	5.0	6.0	4.5	5.0	9.0	8.0	8.5	13.5	12.5	13.0
21	4.5	4.0	4.5	6.0	5.0	5.5	9.0	8.0	8.5	15.0	13.0	14.0
22	4.5	3.5	4.0	5.5	5.0	5.0	9.0	8.0	8.5	17.5	14.0	15.5
23	4.5	3.5	4.0	5.0	4.5	4.5	9.0	8.0	8.5	18.5	17.0	18.0
24	5.5	4.5	5.0	5.5	4.0	4.5	8.0	8.0	8.0	18.5	16.5	17.5
25	5.5	5.0	5.5	5.5	4.5	5.0	8.5	8.0	8.0	19.0	16.5	18.0
26	5.0	4.0	4.0	6.5	5.0	5.5	10.5	8.0	9.0	20.0	17.5	18.5
27	4.0	3.0	3.5	7.0	5.0	6.0	12.0	9.5	11.0	20.0	18.0	19.0
28	3.0	2.5	3.0	6.5	5.0	6.0	13.0	11.5	12.0	19.0	17.0	18.0
29	3.5	2.0	3.0	5.0	2.5	3.5	15.0	12.5	13.5	16.5	13.5	15.0
30	---	---	---	4.0	2.5	3.5	14.5	14.0	14.5	13.5	13.0	13.5
31	---	---	---	5.5	3.5	4.5	---	---	---	13.5	13.0	13.0
MONTH	5.5	1.0	2.5	7.0	1.0	3.5	15.0	4.5	8.5	20.0	10.0	13.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	13.0	13.5	20.5	19.5	20.5	25.5	22.5	24.0	24.0	22.5	23.0
2	15.5	13.5	14.5	21.0	19.0	20.0	25.5	24.0	24.5	22.5	21.5	22.0
3	15.5	14.5	15.0	22.0	20.0	21.0	25.5	24.0	25.0	23.0	21.5	22.0
4	15.5	14.0	15.0	23.0	20.5	22.0	26.5	24.5	25.0	22.5	21.5	22.0
5	17.5	15.5	16.5	24.0	22.5	23.0	26.0	25.0	25.5	21.5	19.5	20.5
6	18.5	17.0	18.0	23.0	22.0	22.5	26.5	24.0	25.5	20.0	18.5	19.0
7	21.0	18.0	19.5	22.0	20.5	21.0	26.0	24.5	25.5	19.5	17.5	18.5
8	22.5	19.5	21.0	21.0	20.0	20.5	27.0	24.0	25.5	20.0	17.5	19.0
9	25.0	20.5	22.0	20.5	19.5	20.0	26.5	25.0	25.5	20.5	18.5	19.5
10	25.5	23.0	24.0	20.5	19.5	20.0	25.5	24.5	25.0	20.5	19.0	20.0
11	26.5	24.0	25.5	22.0	20.0	21.0	25.0	23.5	24.0	21.5	19.5	20.5
12	25.0	22.5	24.0	24.5	20.5	22.5	25.0	24.0	24.5	22.0	20.5	21.5
13	24.5	23.0	23.5	24.5	22.5	23.5	26.5	24.5	25.5	22.0	20.5	21.5
14	23.5	22.0	23.0	25.0	23.0	24.0	27.0	25.0	26.0	21.5	20.5	21.0
15	22.5	20.5	21.5	26.0	23.5	25.0	27.5	25.0	26.5	20.5	17.0	19.5
16	21.0	19.0	20.0	26.0	24.5	25.5	27.5	25.0	26.5	19.0	16.5	17.5
17	20.0	19.5	19.5	26.0	24.0	25.0	27.5	24.5	26.0	18.0	16.5	17.5
18	20.0	19.0	19.5	24.5	23.0	23.5	26.0	23.5	25.0	18.0	16.5	17.5
19	22.5	19.0	21.0	23.5	22.0	23.0	24.0	23.0	23.0	18.5	17.0	18.0
20	24.0	21.5	22.5	24.0	22.0	23.0	23.5	22.0	22.5	20.0	18.0	19.0
21	24.5	21.0	23.0	23.0	22.0	22.5	23.5	20.5	22.5	20.0	18.0	19.0
22	25.0	22.0	23.5	25.0	21.5	23.0	24.0	21.0	22.5	20.5	18.5	19.5
23	24.5	22.5	23.5	26.0	23.5	24.5	24.0	22.0	23.0	21.5	20.0	20.5
24	24.0	22.0	22.5	25.5	24.5	25.0	23.5	21.5	22.5	---	---	---
25	24.0	21.0	22.5	25.5	23.5	24.5	23.5	21.0	22.5	---	---	---
26	24.0	21.5	23.0	24.5	22.5	23.5	24.0	21.5	23.0	---	---	---
27	24.5	21.5	23.0	24.0	21.0	22.5	23.5	22.0	23.0	---	---	---
28	25.0	23.0	24.5	21.5	20.0	20.5	24.5	21.5	23.0	---	---	---
29	26.0	24.0	25.0	23.5	21.0	22.0	24.5	23.0	24.0	---	---	---
30	25.0	21.0	23.0	24.0	21.5	22.5	25.5	23.0	24.5	---	---	---
31	---	---	---	24.5	22.0	23.0	25.5	24.0	25.0	---	---	---
MONTH	26.5	13.0	21.0	26.0	19.0	22.5	27.5	20.5	24.5	24.0	16.5	20.0

01438500 DELAWARE RIVER AT MONTAGUE, NJ

LOCATION.--Lat 41°18'33", long 74°47'44", Pike County, PA, Hydrologic Unit 02040104, on right bank 1,500 ft upstream from toll bridge (on U.S. Route 206) between Montague, N.J. and Milford, Pa. 0.8 mi downstream from Sawkill Creek, and at river mile 246.3.

DRAINAGE AREA.--3,480 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to September 1939 (gage heights only, published as "at Milford, PA"). October 1939 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR-NJ-81-2: 1980.

GAGE.--Water-stage recorder. Datum of gage is 369.93 ft National Geodetic Vertical Datum of 1929. Prior to Feb. 9, 1940, nonrecording gage on upstream side of left span of subsequently dismantled bridge at present site at datum 70 ft lower.

REMARKS.--Water-discharge records excellent except those for winter months, which are good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--45 years, 5,850 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250,000 ft³/s Aug. 19, 1955, gage height, 35.15 ft, from rating curve extended above 90,000 ft³/s on basis of flood-routing study; minimum, 382 ft³/s Aug. 24, 1954, gage height, 3.83 ft, minimum daily, 412 ft³/s Aug. 23, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 10, 1903, reached a stage of 35.5 ft from floodmark, present datum.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 89,500 ft³/s May 30, gage height, 20.75 ft; minimum discharge, 936 ft³/s Oct. 16, gage height, 4.33 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1720	1670	6950	4700	1700	7370	5800	7060	40200	8650	2820	1890
2	1770	1720	5630	4000	1900	6400	6570	6100	26500	15700	3180	1670
3	1660	1730	4550	3800	1900	5720	7790	5590	20300	9560	2990	1740
4	1490	1740	4080	3900	2000	5080	9670	11200	16400	6850	3030	1940
5	1610	1730	4150	3600	2400	5110	34100	16000	12600	5290	2400	2050
6	1750	1730	4850	3500	3200	5270	64300	13400	10300	5290	2410	1840
7	1890	1780	11400	3300	3700	5570	40300	11900	8930	9990	3010	1790
8	1740	1740	13500	2600	3700	4830	27600	10500	7780	9460	2970	1710
9	1690	1650	9650	2600	3100	4420	20500	12000	6530	7390	3080	1740
10	1680	1660	7690	3000	3100	3870	16200	12100	5020	6250	2590	1700
11	1710	1890	6010	3100	2700	3400	13700	10600	4580	5630	2550	1660
12	1980	1980	5390	3000	2600	3260	12000	9150	4940	5100	1990	1670
13	1890	2020	16400	3300	3300	3860	10700	9220	4430	5010	2160	1700
14	1750	1880	57100	3200	6000	4050	9660	9940	4620	4520	2490	1800
15	1420	1620	38600	2600	30000	4090	10200	11400	4420	3820	2250	1920
16	1190	1760	22900	2400	50600	4820	15200	10900	3940	3630	2130	1930
17	1450	1850	15300	2900	28900	5650	27600	9740	2850	3830	2590	1730
18	1480	1550	12000	2700	19500	5120	25100	8810	2890	4120	2290	1650
19	1890	1890	10200	2700	15300	5470	21100	7580	3640	4580	1940	1810
20	1920	1860	8410	2700	15500	5930	21100	6580	3290	4310	1960	1790
21	1830	2050	7230	2600	13800	6920	18400	6940	2250	3640	2060	1760
22	1920	2980	6300	2200	11300	10400	14800	7460	1930	2230	2180	1790
23	1830	3070	6700	1900	9770	10300	13100	6440	1790	2260	2060	1770
24	2030	2430	6700	2200	10200	8490	12900	8010	1970	3320	1970	1700
25	2020	3440	6000	2300	10200	6900	12200	7680	2210	3080	2040	1850
26	1760	6560	5200	2700	8970	6870	11300	6490	2230	2730	1700	1910
27	1820	5890	4800	2900	7970	6780	10100	6250	1940	2750	1720	1860
28	1730	5190	4500	3300	7610	6590	8790	5520	1690	3410	1920	1640
29	1640	6280	5000	2400	8080	7230	7040	36500	1710	3300	1980	1670
30	1620	8380	6100	1900	---	7170	6720	82700	4400	2600	1930	1710
31	1620	---	5900	1800	---	6450	---	61900	---	3070	2150	---
TOTAL	53500	81720	329190	89800	289000	183390	514540	435660	216280	161370	72540	53390
MEAN	1726	2724	10620	2897	9966	5916	17150	14050	7209	5205	2340	1780
MAX	2030	8380	57100	4700	50600	10400	64300	82700	40200	15700	3180	2050
MIN	1190	1550	4080	1800	1700	3260	5800	5520	1690	2230	1700	1640

CAL YR 1983 TOTAL 2236530 MEAN 6127 MAX 57100 MIN 1090
WTR YR 1984 TOTAL 2480380 MEAN 6777 MAX 82700 MIN 1190

01439500 BUSH KILL AT SHOEMAKERS, PA

LOCATION.--Lat 41°05'17", long 75°02'17", Monroe County, Hydrologic Unit 02040104, on right bank 30 ft (9 m) downstream from highway bridge, 0.1 mi (0.2 km) downstream from Saw Creek, 0.7 mi (1.1 km) northwest of Shoemakers, and 2 mi (3.2 km) southwest of Bushkill.

DRAINAGE AREA.--117 mi^2 (303 km^2).

PERIOD OF RECORD.--October 1908 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1928, published as Bushkill Creek near Shoemakers; October 1928 to September 1952, published as Bushkill Creek at Shoemakers.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1921, 1932(M), 1933, 1935-36, 1938(M), 1939-40, 1942, 1945, 1946(M), 1948(M). WSP 1302: 1909-15, 1920(M), 1922-29.

GAGE.--Water-stage recorder. Datum of gage is 421.13 ft (128.360 m) National Geodetic Vertical Datum of 1929. Sept. 19, 1908, to Aug. 12, 1938, nonrecording gage, and Aug. 13, 1938, to June 20, 1956, water-stage recorder at site 50 ft (15 m) upstream at same datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--76 years, 236 ft^3/s (6.684 m^3/s), 27.43 in/yr (697 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,400 ft^3/s (663 m^3/s) Aug. 19, 1955, gage height, 13.95 ft (4.252 m), from floodmarks, from rating curve extended above 2,600 ft^3/s (73.6 m^3/s) on basis of slope-area measurement of peak flow; minimum, 2.6 ft^3/s (0.074 m^3/s) Sept. 25, 26, 27, 1964, gage height, 0.72 ft (0.219 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft^3/s (31.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 14	1030	2240	63.4	4.57	1.393	May 4	1000	1250	35.4	3.46	1.055
Feb. 15	1830	1510	42.8	3.76	1.146	May 29	2030	2500	70.8	4.84	1.475
Apr. 5	2200	*3340	94.6	*5.65	1.722						

Minimum daily discharge, 12 ft^3/s (0.34 m^3/s) Oct. 1, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	42	438	250	170	375	329	233	1300	389	108	42
2	18	39	381	235	200	343	389	214	961	393	113	32
3	25	38	338	230	230	317	453	213	751	277	114	28
4	22	38	369	225	260	279	550	1060	607	296	102	30
5	16	36	388	220	230	267	2370	893	489	274	148	32
6	18	32	411	200	200	268	2790	702	406	258	123	28
7	18	29	634	188	182	259	1850	577	342	518	109	25
8	16	27	529	175	164	236	1280	580	286	459	94	24
9	14	26	461	170	152	226	968	639	241	354	82	23
10	13	27	420	168	140	216	778	527	214	279	75	22
11	12	83	372	166	180	217	644	455	188	249	80	22
12	15	109	399	162	250	209	550	413	155	244	74	21
13	26	96	1260	160	350	200	464	380	135	203	71	20
14	35	82	2090	158	614	214	406	377	128	173	65	20
15	32	79	1630	152	1200	192	414	338	120	143	58	20
16	27	177	1340	150	1320	192	622	300	116	211	52	20
17	23	174	1020	148	1000	208	711	264	113	181	50	19
18	22	130	813	147	811	233	656	241	122	323	48	17
19	54	111	670	146	688	249	728	235	133	335	43	17
20	65	100	549	145	647	301	796	237	117	230	58	14
21	45	201	502	145	553	372	694	280	105	202	58	14
22	36	202	470	144	467	466	597	237	94	186	46	14
23	37	175	440	160	413	430	540	254	85	153	55	15
24	164	170	400	200	564	378	523	332	117	126	67	15
25	123	385	370	268	587	347	470	264	274	116	50	15
26	92	369	350	250	509	320	411	236	139	111	40	15
27	72	339	320	230	445	290	357	224	105	175	35	17
28	68	332	305	212	450	310	305	232	95	203	32	17
29	61	555	290	200	400	365	271	1370	86	157	30	16
30	52	510	275	188	---	324	245	2400	269	122	30	16
31	45	---	260	178	---	304	---	1840	---	115	53	---
TOTAL	1280	4713	18494	5770	13376	8907	22161	16547	8293	7455	2163	630
MEAN	41.3	157	597	186	461	287	739	534	276	240	69.8	21.0
MAX	164	555	2090	268	1320	466	2790	2400	1300	518	148	42
MIN	12	26	260	144	140	192	245	213	85	111	30	14
CFSM	.35	1.34	5.10	1.59	3.94	2.45	6.32	4.56	2.36	2.05	.60	.18
IN.	.41	1.50	5.88	1.83	4.25	2.83	7.05	5.26	2.64	2.37	.69	.20

CAL YR 1983 TOTAL 110416.8 MEAN 303 MAX 2520 MIN 8.2 CFSM 2.59 IN. 35.11
WTR YR 1984 TOTAL 109789 MEAN 300 MAX 2790 MIN 12 CFSM 2.56 IN. 34.91

01440200 DELAWARE RIVER BELOW TOCKS ISLAND DAMSITE, NEAR DELAWARE WATER GAP, PA

LOCATION.--Lat 41°00'42", long 75°05'09", Warren County, NJ, Hydrologic Unit 02040105, on left bank 40 ft streamward from River Road, 1.0 mi downstream from Tocks Island, 3.7 mi northeast of Delaware Water Gap, PA, 4.0 mi upstream from bridge on Interstate Highway 80, and at mile 216.1.

DRAINAGE AREA.--3,850 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 293.64 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. No gage-height record Jan. 21 to 26. Diurnal fluctuation at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--20 years, 6,474 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft³/s June 30, 1973, gage height, 23.82 ft; minimum daily, 580 ft³/s July 7, 8, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 97,300 ft³/s May 30, gage height, 21.77 ft; minimum, 1,140 ft³/s Oct. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1840	1800	9210	6400	2200	9130	6920	7870	55800	8230	3390	2290
2	1890	1840	7360	5800	2200	7830	7190	7070	34600	17000	3460	1750
3	1920	1880	6060	5200	2380	7120	8620	6620	25100	12100	3590	1870
4	1770	1910	5390	5050	2800	6470	10400	11100	19900	8690	3450	2020
5	1590	1900	5360	4750	4000	5950	34100	19200	15400	6430	3080	2290
6	1810	1900	5900	4500	3850	6370	78900	15800	11500	6430	2980	2100
7	1980	1890	10200	4300	4200	6450	53800	13700	10000	9680	3500	1910
8	1920	1920	17100	3500	4100	6170	34500	12200	8760	11500	3400	1890
9	1830	1870	12300	3300	3800	5460	24400	13000	7600	9270	3510	1840
10	1780	1840	9950	3600	3550	5000	18800	13600	6410	7360	3300	1880
11	1800	1990	7930	3550	3750	4230	15700	12200	5470	6790	3030	1820
12	1960	2490	6690	3250	3170	3750	13500	10800	5400	5870	2440	1780
13	2140	2250	14900	3000	3500	4320	12000	9770	5210	6180	2360	1810
14	1960	2530	59600	3150	7320	4550	10800	10500	5150	5410	2750	1770
15	1790	2020	52800	2950	31000	4800	10700	11900	5080	4630	2680	2110
16	1360	2240	32900	2750	60500	5150	14500	11800	4660	4360	2370	1980
17	1470	2530	21700	2650	38500	6070	28000	10700	3560	4440	2660	1990
18	1550	2330	16100	3050	24300	6290	28000	9700	3330	5120	2650	1860
19	1850	2120	13300	3050	18400	6230	23600	8660	4080	5960	2230	1750
20	2250	2400	11100	2850	17400	6670	22700	7650	4020	5620	2220	2030
21	2110	2550	9260	2600	16400	7470	21000	7440	3010	4810	2300	1960
22	2000	3350	8490	2650	13500	10500	16900	8270	2510	3320	2330	1870
23	2080	3910	9900	2380	11600	11700	14300	7520	2240	2850	2440	1960
24	2480	3370	9000	2550	11300	10200	14200	8250	2290	3610	2230	1920
25	2660	3880	7300	3000	12400	8220	13300	8630	2970	3690	2360	1750
26	2280	7010	6100	3300	10900	7650	12400	7560	2810	3250	2000	1760
27	2040	7600	5750	3400	9620	7780	11200	7060	2540	3340	1870	1740
28	2050	6560	5850	3800	9080	7490	10100	6500	2210	3830	2120	1660
29	1910	7310	7700	3350	9450	8180	8140	28400	2000	3990	2110	1570
30	1830	9550	7350	2500	---	8190	7490	93200	2650	3410	2160	1530
31	1800	---	7000	2380	---	7740	---	79200	---	3600	2450	---
TOTAL	59700	96740	409550	108560	345170	213130	586160	485870	266260	190770	83420	56460
MEAN	1926	3225	13210	3502	11900	6875	19540	15670	8875	6154	2691	1882
MAX	2660	9550	59600	6400	60500	11700	78900	93200	55800	17000	3590	2290
MIN	1360	1800	5360	2380	2200	3750	6920	6500	2000	2850	1870	1530

CAL YR 1983 TOTAL 2736190 MEAN 7496 MAX 74100 MIN 1250
WTR YR 1984 TOTAL 2901790 MEAN 7928 MAX 93200 MIN 1360

01440400 BRODHEAD CREEK NEAR ANALOMINK, PA

LOCATION.--Lat 41°05'05", long 75°12'54", Monroe County, Hydrologic Unit 02040104, on left bank 1.5 mi (2.4 km) upstream from Paradise Creek, 1.6 mi (2.6 km) southeast of Henryville, and 2.3 mi (3.7 km) north of Analomink.

DRAINAGE AREA.--65.9 mi² (170.7 km²).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 586.50 ft (178.765 m) National Geodetic Vertical Datum of 1929. Prior to Dec. 12, 1957, nonrecording gage at same site and datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 138 ft³/s (3.908 m³/s), 28.46 in/yr (723 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,900 ft³/s (365 m³/s) July 28, 1969, gage height, 11.82 ft (3.603 m), from rating curve extended above 1,400 ft³/s (40 m³/s) on basis of slope-area measurement of peak flow; minimum, 5.4 ft³/s (0.15 m³/s) Sept. 11, 12, 13, 14, gage height, 1.14 ft (0.347 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,100 ft³/s (31.2 m³/s) and maximum (*).

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 14	0130	2740	77.6	6.44	1.963	May 4	0500	1480	41.9	5.12	1.561
Feb. 15	1100	1980	56.1	5.70	1.737	May 29	1530	2410	68.3	6.13	1.868
Apr. 5	1130	*7240	205	*9.38	2.859						

Minimum discharge, 9.3 ft³/s (0.26 m³/s) Sept. 26, 27, 28, gage height 1.21 ft (0.369 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	28	272	158	70	180	182	144	627	258	53	22
2	13	26	223	150	82	172	216	128	424	227	56	20
3	13	26	196	140	84	156	268	132	312	158	55	21
4	11	27	223	130	102	144	364	946	261	144	51	23
5	10	24	235	128	91	142	3700	540	216	117	50	20
6	12	22	282	122	80	146	1810	377	188	135	48	18
7	11	20	473	116	73	138	1000	306	164	380	42	17
8	9.9	19	331	107	69	127	742	342	143	253	41	16
9	9.7	18	268	97	66	124	604	369	123	185	37	15
10	9.7	29	232	84	63	127	446	289	107	148	37	15
11	9.7	58	201	71	69	121	382	249	95	140	37	15
12	14	62	284	66	88	113	273	230	83	153	36	14
13	32	50	1660	63	112	100	230	214	79	111	35	13
14	32	40	1780	61	225	100	208	222	91	92	34	13
15	26	43	942	60	1540	102	251	191	75	79	31	13
16	20	140	730	59	967	117	444	173	70	140	29	14
17	17	120	500	57	646	128	437	160	67	100	28	13
18	16	102	351	55	483	124	377	145	84	212	27	12
19	39	90	293	54	391	140	407	138	86	165	25	12
20	35	76	240	53	365	164	396	139	69	115	39	11
21	26	160	212	51	301	239	322	167	55	96	31	11
22	22	140	214	50	254	305	270	137	48	88	27	13
23	24	120	218	52	227	253	258	149	45	79	33	13
24	91	110	222	68	365	216	268	185	76	69	32	13
25	65	235	226	90	315	198	237	143	146	60	27	13
26	53	215	214	122	260	185	205	128	74	53	24	13
27	46	195	202	104	221	170	181	121	58	113	22	12
28	41	180	194	97	218	189	165	138	49	115	21	13
29	36	390	184	85	202	224	156	1440	44	83	20	14
30	31	315	176	78	---	189	154	1420	207	69	20	14
31	29	---	166	72	---	170	---	903	---	60	30	---
TOTAL	815.0	3080	11944	2700	8029	5003	14953	10365	4166	4197	1078	446
MEAN	26.3	103	385	87.1	277	161	498	334	139	135	34.8	14.9
MAX	91	390	1780	158	1540	305	3700	1440	627	380	56	23
MIN	9.7	18	166	50	63	100	154	121	44	53	20	11
CFSM	.40	1.56	5.84	1.32	4.20	2.44	7.56	5.07	2.11	2.05	.53	.23
IN.	.46	1.74	6.74	1.52	4.53	2.82	8.44	5.85	2.35	2.37	.61	.25

CAL YR 1983 TOTAL 67530.6 MEAN 185 MAX 2670 MIN 6.6 CFSM 2.81 IN. 38.12
WTR YR 1984 TOTAL 66776.0 MEAN 182 MAX 3700 MIN 9.7 CFSM 2.76 IN. 37.69

01442500 BRODHEAD CREEK AT MINISINK HILLS, PA

LOCATION.--Lat 40°59'55", long 75°08'35", Monroe County, Hydrologic Unit 02040104, on left bank at Minisink Hills, 500 ft (150 m) upstream from Marshall Creek, 1,500 ft (460 m) downstream from Coates Paper Box Co., 0.8 mi (1.3 km) upstream from mouth, and 3 mi (4.8 km) southeast of East Stroudsburg.

DRAINAGE AREA.--259 mi² (671 km²).

PERIOD OF RECORD.--November 1950 to current year.

REVISED RECORDS.--WSP 1232: 1951(P).

GAGE.--Water-stage recorder. Datum of gage is 301.84 ft (92.001 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 19, 1955, water-stage recorder, and Aug. 23 to Nov. 24, 1955, nonrecording gage at site about 1,300 ft (400 m) upstream at datum 2.19 ft (0.668m) higher. Nov. 25, 1955, to July 24, 1956, nonrecording gage at site 40 ft (12 m) upstream at present datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 568 ft³/s (16.09 m³/s), 29.77 in/yr (756 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 68,800 ft³/s (1,950 m³/s) Aug. 19, 1955, gage height, 29.9 ft (9.11 m), site and datum then in use, 27.0 ft (8.23 m), present site and datum, from floodmarks, from rating curve extended above 4,600 ft³/s (130 m³/s) on basis of computation of flow over dam at gage height 14.43 ft (4.398 m) and slope-area measurement of peak flow, site and datum then in use; minimum, 29 ft³/s (0.82 m³/s) Sept. 27, 1964; minimum gage height, 1.10 ft (0.335 m) Sept. 10, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,300 ft³/s (122 m³/s) and maximum (*).

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 14	0045	8240	233	7.73	2.356	May 4	0645	5200	147	6.84	2.085
Feb. 15	1015	6520	185	6.92	2.109	May 30	1030	14900	422	9.73	2.966
Apr. 5	1415	*19200	544	*12.23	3.728						

Minimum discharge, 58 ft³/s (1.63 m³/s) Oct. 8, 9, 10,11, gage height 1.55 ft. (0.472 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	112	1130	833	296	750	911	926	2350	1120	312	213
2	82	108	933	725	263	753	1060	861	1710	1050	364	163
3	74	105	838	684	335	688	1190	784	1360	750	725	154
4	68	105	1060	658	460	624	1470	3200	1180	657	394	168
5	67	100	1090	622	530	590	10900	1890	985	655	391	155
6	66	96	1120	601	469	570	9020	1440	868	865	386	143
7	62	98	1880	559	410	560	3820	1200	777	1540	310	128
8	60	91	1310	500	370	553	2790	1270	688	1080	310	120
9	60	88	1100	410	366	550	2290	1350	612	852	279	112
10	61	103	985	350	337	492	1910	1090	541	730	303	110
11	60	292	851	300	416	475	1670	976	486	857	292	112
12	91	312	1160	250	546	444	1490	908	429	1170	263	104
13	167	221	5320	242	621	435	1320	859	394	783	277	101
14	149	189	7160	236	921	415	1200	882	410	639	240	104
15	121	203	4110	230	4860	436	1350	774	356	545	219	105
16	98	1080	2940	225	3680	525	2050	714	325	950	199	107
17	85	682	2200	218	2400	610	1950	653	317	783	193	104
18	84	502	1720	212	1880	600	1760	600	469	1200	180	100
19	224	416	1460	206	1580	665	1710	602	489	1030	168	97
20	182	367	1210	200	1470	707	1660	580	354	766	209	92
21	128	938	1040	196	1220	900	1470	672	293	660	181	88
22	108	720	1060	190	1060	1200	1320	571	261	607	164	85
23	120	582	1120	222	956	980	1290	600	241	523	211	85
24	608	554	1150	300	1390	866	1360	765	344	463	199	88
25	358	1440	1080	400	1180	801	1240	592	1300	400	165	87
26	254	1180	1110	420	1000	756	1140	539	542	355	148	80
27	196	969	1070	380	876	688	1070	515	388	665	140	75
28	165	917	1070	355	820	816	1000	552	313	648	136	80
29	144	1990	1040	346	780	997	994	4530	290	470	136	89
30	127	1460	1030	332	---	839	951	12600	784	392	136	86
31	118	---	892	325	---	794	---	6220	---	347	393	---
TOTAL	4256	16020	51239	11727	31492	21088	63356	49715	19856	23552	8023	3335
MEAN	137	534	1653	378	1086	680	2112	1604	662	760	259	111
MAX	608	1990	7160	833	4860	1200	10900	12600	2350	1540	725	213
MIN	60	88	838	190	263	415	911	515	241	347	136	75
CFSM	.53	2.06	6.38	1.46	4.19	2.63	8.15	6.19	2.56	2.93	1.00	.43
IN.	.61	2.30	7.36	1.68	4.52	3.03	9.10	7.14	2.85	3.38	1.15	.48

CAL YR 1983 TOTAL 282582 MEAN 774 MAX 9290 MIN 53 CFSM 2.99 IN. 40.59
WTR YR 1984 TOTAL 303659 MEAN 830 MAX 12600 MIN 60 CFSM 3.20 IN. 43.61

01443000 DELAWARE RIVER AT PORTLAND, PA

LOCATION.--Lat 40°55'26", long 75°05'46", Northampton County, Hydrologic Unit 02040105, at walkbridge connecting Portland, PA and Columbia, NJ, and 0.5 mi upstream of Paulins Kill.

DRAINAGE AREA.--4,165 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT										
05...	1045	1690	104	8.1	19.0	9.8	--	E2.2	<20	>2400
FEB										
09...	1100	4910	92	7.2	1.5	14.4	--	E1.4	230	17
MAR										
27...	1045	10300	76	7.8	5.0	13.0	--	3.1	<20	2
JUN										
05...	1115	18300	76	7.3	15.0	10.1	101	E1.8	70	23
JUL										
23...	1215	4410	79	7.5	22.0	8.3	96	E1.7	20	27
AUG										
14...	1230	3500	91	7.9	24.5	7.6	91	E1.8	20	350

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT									
05...	33	9.9	2.1	5.5	1.0	21	12	7.3	<.10
FEB									
09...	30	8.7	1.9	6.8	.90	15	13	11	<.10
MAR									
27...	22	6.6	1.3	4.5	.60	9.0	11	7.9	<.10
JUN									
05...	20	6.1	1.2	2.8	.70	10	11	4.6	<.10
JUL									
23...	28	8.7	1.6	3.7	.70	18	11	6.0	<.10
AUG									
14...	30	9.3	1.7	4.2	.80	21	11	6.8	<.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT									
05...	1.2	52	.006	.37	.160	.17	.54	.040	2.5
FEB									
09...	3.3	68	.007	.50	.110	.30	.80	.050	1.7
MAR									
27...	2.6	49	.004	.26	.050	.21	.47	.020	2.1
JUN									
05...	2.8	--	.005	.29	<.050	.40	.69	.050	2.7
JUL									
23...	2.7	56	.007	.24	<.050	.38	.62	.030	3.3
AUG									
14...	2.4	58	.005	.32	.050	.33	.65	.040	2.5

01443000 DELAWARE RIVER AT PORTLAND, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
JUN									
05...	1115	<.5	60	<1	<10	<20	1	10	3

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN								
05...	20	14	50	<.1	4	<1	30	5

01446500 DELAWARE RIVER AT BELVIDERE, NJ

LOCATION.--Lat 40°49'36", long 75°05'02", Warren County, Hydrologic Unit 02040105, on left bank at Belvidere, 800 ft downstream from Pequest River, and at mile 197.7.

DRAINAGE AREA.--4,535 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1922 to current year.

REVISED RECORDS.--WSP 781: 1933(M). WSP 951: 1940-41, Drainage area. WSP 1432: 1923, 1924(M).

GAGE.--Water-stage recorder. Datum of gage 226.43 ft National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1929, nonrecording gage at site 200 ft upstream at same datum.

REMARKS.--Water-discharge records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lake Wallenpaupack, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, and Neversink Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversions from Pepacton, Cannonsville, and Neversink Reservoirs (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--62 years, 7,921 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 273,000 ft³/s Aug. 19, 1955, gage height, 30.21 ft, from high-water mark in gage house, from rating curve extended above 170,000 ft³/s on basis of flood-routing study; minimum, 609 ft³/s Sept. 28, 29, 1943, gage height, 2.11 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 10, 1903, reached a stage of 28.6 ft, from floodmark, discharge, 220,000 ft³/s, from rating curve extended above 170,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 111,000 ft³/s May 30, gage height, 18.99 ft; minimum, 1,260 ft³/s Oct. 17, gage height, 2.83 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1940	2120	12200	8080	2940	11900	10100	10000	61000	9740	4450	3020
2	2130	2170	9790	7270	2810	10300	10700	9130	39600	18100	4270	2400
3	2150	2220	8250	6850	3330	9280	12200	8510	29500	15200	5140	2270
4	1960	2230	7870	6760	4770	8480	14100	16600	23800	11100	4530	2620
5	1750	2230	8330	6600	5150	7750	39400	24300	19400	8550	4230	2760
6	1890	2200	8350	6200	4930	8280	89200	20400	15700	9840	4110	2680
7	2040	2180	12100	5980	5230	8460	61700	17500	13600	14100	4230	2390
8	2120	2220	19700	4880	4990	8150	40800	16300	11900	16800	4310	2320
9	1970	2160	15400	4260	4860	7280	29900	17100	10500	13500	4190	2180
10	1900	2130	12600	4930	4560	6690	23600	17500	8370	10700	4170	2200
11	1880	2610	10200	4810	4770	6040	20000	15700	7280	9710	3930	2150
12	2070	3140	8930	4040	4920	5330	17400	14200	7270	9960	3560	2100
13	2470	2940	19000	3610	5320	5700	15500	12700	6740	9060	3170	2070
14	2330	2950	66600	4320	6920	6340	14000	13500	6540	7720	3360	2080
15	2120	2640	65400	4200	29100	6850	13800	14500	6430	6770	3410	2270
16	1720	3770	38400	3350	65300	7240	17900	14500	5980	6470	3060	2340
17	1460	3850	26000	3350	43100	8450	30000	13300	5070	6570	3120	2320
18	1710	3430	19600	3920	28400	9100	31700	12000	4710	7580	3330	2110
19	2180	2930	16300	3960	22000	8790	27700	11000	5370	9230	2950	1990
20	2670	3120	13900	3400	20300	9290	26400	9820	5290	8050	2790	2180
21	2510	3920	11100	3190	19500	10200	24800	9540	4370	7040	2760	2150
22	2340	4480	10800	3350	16500	13400	20500	10200	3520	5680	2790	2080
23	2480	5040	11800	3070	14400	15200	17700	9620	3130	4510	3020	2120
24	3660	4610	10800	3320	14200	13600	17500	10500	3140	4730	2910	2110
25	3690	6150	8670	4250	15400	11100	16600	10900	5840	5080	2770	2030
26	3130	9010	7160	4590	13800	10200	15400	9610	4620	4530	2650	2190
27	2680	10000	7540	4490	12200	10300	14100	8790	3910	5030	2310	2210
28	2590	8810	7890	4820	11600	10100	12800	8370	3330	5640	2330	2180
29	2390	10700	10700	4390	12500	11200	10600	26600	2950	5600	2460	1990
30	2210	12400	9680	3550	---	11300	9710	104000	3670	4870	2540	2000
31	2150	---	8930	3500	---	10700	---	89000	---	4550	3060	---
TOTAL	70290	128360	503990	143290	403800	287000	705810	585690	332530	266010	105910	67510
MEAN	2267	4279	16260	4622	13920	9258	23530	18890	11080	8581	3416	2250
MAX	3690	12400	66600	8080	65300	15200	89200	104000	61000	18100	5140	3020
MIN	1460	2120	7160	3070	2810	5330	9710	8370	2950	4510	2310	1990

CAL YR 1983 TOTAL 3337310 MEAN 9143 MAX 91000 MIN 1360
WTR YR 1984 TOTAL 3600190 MEAN 9837 MAX 104000 MIN 1460

01447000 DELAWARE RIVER AT NORTHAMPTON STREET AT EASTON, PA

LOCATION.--Lat 40°41'30", long 75°12'15", Northampton County, Hydrologic Unit 02040105, at bridge on Northampton Street in Easton, 600 ft upstream from Lehigh River, and 0.2 mi downstream from U.S. Route 22 toll bridge in Easton.

DRAINAGE AREA.--4,717 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 05...	1245	1850	157	8.4	19.5	9.7	--	E1.7	20	920
FEB 22...	1045	17200	104	7.4	3.0	12.8	--	E1.6	50	14
MAR 27...	1345	9920	107	7.9	6.0	14.1	--	E2.0	<20	24
JUN 07...	1030	13800	115	7.7	17.0	9.4	98	E1.6	270	920
JUL 23...	1030	4770	158	8.0	22.5	8.1	95	E1.8	20	350
AUG 14...	1030	3220	167	8.0	24.0	7.6	91	2.8	80	540

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 05...	56	15	4.4	8.1	1.1	36	19	10	<.10
FEB 22...	33	9.1	2.5	4.6	.80	18	15	8.3	<.10
MAR 27...	36	9.8	2.7	5.1	.70	22	13	9.2	<.10
JUN 07...	40	11	3.1	4.3	.80	26	14	6.5	<.10
JUL 23...	64	17	5.2	5.6	1.0	46	16	9.3	<.10
AUG 14...	60	16	4.9	6.2	1.0	45	19	9.6	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	1.4	88	.010	.61	<.050	.24	.85	.060	2.3
FEB 22...	3.5	64	.005	.60	.050	.23	.83	.040	3.1
MAR 27...	2.7	66	.008	.35	.160	.25	.60	.020	2.2
JUN 07...	3.3	88	.010	.57	.050	.46	1.0	.050	2.3
JUL 23...	3.5	117	.008	.67	<.050	.30	.97	.040	3.1
AUG 14...	3.0	134	.005	.68	.050	.36	1.0	.040	2.4

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA

LOCATION.--Lat 41°07'49", long 75°37'33", Monroe County, Hydrologic Unit 02040106, on left bank 75 ft (23 m) upstream from bridge on State Highway 115, at Stoddartsville, 1.9 mi (3.1 km) upstream from Tobyhanna Creek, and 4 mi (6 km) southwest of Thornhurst.

DRAINAGE AREA.--91.7 mi² (237.5 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to current year.

REVISED RECORDS.--WSP 1382: 1947, 1951.

GAGE.--Water-stage recorder. Datum of gage is 1,463.81 ft (446.169 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1946, nonrecording gage at site 350 ft (110 m) downstream at datum 2.14 ft (0.652 m) lower.

REMARKS.--Records good.

AVERAGE DISCHARGE.--41 years, 188 ft³/s (5.324 m³/s), 27.83 in/yr (707 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,900 ft³/s (903 m³/s) Aug. 19, 1955, gage height, 16.37 ft (4.990 m), from floodmarks, from rating curve extended above 1,700 ft³/s (48 m³/s) on basis of slope-area measurement of peak flow; minimum observed, 7.0 ft³/s (0.20 m³/s) Sept. 26, 27, 1964; minimum gage height, 0.19 ft (0.058 m) Sept. 27, 1980 Oct. 2, 9, 10, Nov. 17, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 22, 1942, reached a stage of 12.03 ft (3.667 m), from floodmark, present site and datum, discharge, 15,700 ft³/s (445 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s (36.8 m³/s) and maximum (*).

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 14	1130	2150	60.9	4.98	1.518	Apr. 6	0400	*3700	105	*6.65	2.027
Feb. 15	1730	1720	48.7	4.40	1.341	May 29	1430	2740	77.6	5.68	1.731

Minimum discharge, 16 ft³/s (0.45 m³/s) Oct. 6, gage height, 0.25 ft (0.076 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	40	285	186	130	280	234	259	786	532	100	54
2	21	38	239	168	132	260	253	233	587	541	103	47
3	20	38	223	161	144	231	291	236	481	376	107	46
4	18	41	214	154	207	219	365	724	419	315	95	71
5	17	40	234	152	182	205	2070	606	352	246	95	64
6	17	37	258	147	149	207	2860	473	306	255	93	55
7	17	35	424	143	130	195	1320	398	277	943	90	52
8	20	34	340	141	120	181	842	413	246	761	99	48
9	25	33	287	134	112	178	631	570	217	461	81	44
10	21	36	253	127	106	180	512	463	191	353	72	39
11	20	50	223	127	113	168	441	394	172	347	70	38
12	25	61	268	124	163	167	387	381	146	425	73	37
13	32	56	1470	119	208	158	344	384	140	297	69	34
14	117	49	2080	117	439	160	317	400	177	238	65	32
15	86	53	1110	114	1400	156	341	349	158	203	64	33
16	62	120	735	110	1320	167	446	315	140	179	67	36
17	45	123	542	110	845	181	543	282	132	167	165	33
18	42	101	422	111	615	173	551	255	181	313	101	31
19	119	86	355	112	523	188	500	257	214	278	86	29
20	102	79	302	112	546	209	504	272	170	214	121	28
21	75	276	275	112	452	320	432	387	144	179	89	27
22	60	232	250	113	381	418	373	315	123	159	76	25
23	62	178	243	113	333	355	358	323	108	140	104	23
24	156	159	220	142	505	301	346	382	120	128	108	25
25	124	340	214	152	481	270	436	310	177	107	92	25
26	93	317	219	150	410	247	397	283	133	95	79	22
27	77	288	211	152	345	229	336	286	112	172	67	21
28	65	263	224	141	322	241	296	348	97	193	59	21
29	54	402	208	129	315	267	316	1950	88	149	55	23
30	48	353	200	128	---	267	285	1780	383	128	54	24
31	43	---	195	130	---	241	---	1150	---	111	68	---
TOTAL	1703	3978	12723	4131	11128	7019	17327	15180	6977	9005	2667	1087
MEAN	54.9	133	410	133	384	226	578	490	233	290	86.0	36.2
MAX	156	402	2080	186	1400	418	2860	1950	786	943	165	71
MIN	17	33	195	110	106	156	234	233	88	95	54	21
CFSM	.60	1.45	4.47	1.45	4.19	2.46	6.30	5.34	2.54	3.16	.94	.39
IN.	.69	1.61	5.16	1.68	4.51	2.85	7.03	6.16	2.83	3.65	1.08	.44

CAL YR 1983 TOTAL 84215 MEAN 231 MAX 3220 MIN 17 CFSM 2.52 IN. 34.16
WTR YR 1984 TOTAL 92925 MEAN 254 MAX 2860 MIN 17 CFSM 2.77 IN. 37.70

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORDS:--
WATER TEMPERATURES: October 1980 to current year.

INSTRUMENTATION.--Temperature recorder since October 1980.

REMARKS.--Interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TWMPERATURES: Maximum, 26.0°C July 18, 19, 1982, July 17, 1983; minimum, 0.0°C on many days during winter period.

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	12.5	13.0	7.0	4.0	5.5	---	---	---	1.5	1.0	1.0
2	16.5	13.0	14.5	9.0	5.0	7.0	---	---	---	1.0	.5	1.0
3	16.5	12.5	14.5	9.0	7.0	8.0	---	---	---	1.0	.5	1.0
4	16.0	12.5	14.5	8.5	6.0	7.0	---	---	---	2.0	1.0	1.5
5	16.5	14.0	15.5	7.0	5.5	6.0	---	---	---	2.5	1.5	2.0
6	16.5	14.0	15.0	6.0	5.0	5.5	---	---	---	2.5	2.0	2.0
7	14.5	11.5	13.0	8.0	5.0	6.5	---	---	---	2.5	1.5	2.0
8	14.0	10.0	12.0	8.0	5.0	6.0	---	---	---	3.5	1.5	2.5
9	12.5	10.5	11.0	8.0	4.5	6.0	---	---	---	3.0	1.5	2.0
10	12.0	10.0	11.0	7.0	4.5	6.0	---	---	---	2.5	1.5	2.0
11	10.5	9.0	10.0	8.0	6.5	7.0	---	---	---	3.0	1.5	2.0
12	13.0	10.5	12.0	6.5	4.0	5.0	---	---	---	3.5	3.0	3.0
13	15.5	12.5	13.5	5.0	3.5	4.5	---	---	---	3.5	3.0	3.0
14	14.5	12.0	13.0	4.0	3.5	4.0	---	---	---	3.0	1.5	2.5
15	13.0	10.5	11.5	4.5	3.5	4.0	---	---	---	3.0	1.5	2.5
16	12.5	9.0	10.5	5.5	4.5	5.0	4.0	3.0	3.5	3.0	2.0	3.0
17	12.0	9.5	10.5	5.0	5.0	5.0	3.0	1.5	2.5	3.0	2.0	2.0
18	11.0	10.0	10.5	5.0	5.0	5.0	1.5	1.0	1.5	3.5	2.0	2.5
19	12.0	10.0	11.0	5.0	5.0	5.0	2.0	.5	1.0	3.5	2.5	2.5
20	11.0	9.0	10.0	---	---	---	1.5	.0	.5	3.0	2.0	2.5
21	10.0	8.0	8.5	---	---	---	2.5	.5	1.5	3.5	2.0	3.0
22	9.0	7.0	7.5	---	---	---	1.0	.0	.5	3.5	2.5	3.5
23	8.5	7.5	8.0	---	---	---	.0	.0	.0	3.5	2.0	2.5
24	10.0	8.5	9.5	---	---	---	.0	.0	.0	2.5	1.5	2.0
25	10.0	9.0	9.5	---	---	---	.5	.0	.5	2.5	1.0	1.5
26	9.0	8.5	9.0	---	---	---	1.5	.5	1.0	1.0	1.0	1.0
27	8.5	7.0	8.0	---	---	---	1.5	1.0	1.0	1.0	.5	.5
28	9.0	6.5	7.5	---	---	---	1.5	.5	1.0	1.5	.5	1.0
29	9.0	7.0	8.0	---	---	---	1.5	.5	.5	1.0	1.0	1.0
30	8.0	6.5	7.0	---	---	---	2.0	.5	1.0	1.0	.5	.5
31	7.0	5.0	6.0	---	---	---	1.5	1.0	1.0	1.0	.5	.5
MONTH	16.5	5.0	11.0	9.0	3.5	5.5	4.0	.0	1.0	3.5	.5	2.0

01447500 LEHIGH RIVER AT STODDARTSVILLE, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1.0	1.0	1.0	.5	.0	.5	4.0	.0	1.5	11.5	8.5	10.0
2	1.0	1.0	1.0	1.0	.0	.5	4.0	1.0	2.5	---	---	---
3	1.0	.5	.5	1.0	.0	.5	5.5	1.5	3.0	---	---	---
4	.5	.0	.0	1.0	.0	.5	5.5	2.5	3.5	---	---	---
5	.5	.0	.0	.5	.0	.0	2.5	2.0	2.5	---	---	---
6	.5	.0	.5	2.0	.5	1.0	2.0	2.0	2.0	---	---	---
7	1.0	.5	.5	3.0	.5	1.5	2.5	2.0	2.0	---	---	---
8	1.0	1.0	1.0	1.5	.5	1.0	4.0	1.5	2.0	---	---	---
9	2.5	1.0	1.5	1.0	.0	.5	5.0	2.5	3.5	---	---	---
10	2.5	1.0	1.5	1.0	.5	.5	6.0	3.0	4.5	---	---	---
11	1.5	1.0	1.5	1.0	.0	.5	7.0	4.0	5.5	---	---	---
12	1.5	.5	1.0	1.0	.0	.5	8.0	5.0	6.5	---	---	---
13	1.0	.5	.5	.5	.0	.5	9.0	6.0	7.5	---	---	---
14	1.0	.5	1.0	1.0	.0	.5	7.5	6.0	6.5	---	---	---
15	1.0	.5	.5	3.0	.5	1.5	6.0	5.5	5.5	---	---	---
16	1.5	.5	1.0	3.0	.5	1.5	6.0	5.5	5.5	---	---	---
17	2.0	1.0	1.5	3.5	1.0	2.0	7.5	5.5	6.0	---	---	---
18	3.0	1.5	2.0	4.0	1.5	2.5	7.5	5.5	6.5	---	---	---
19	2.5	2.0	2.0	4.0	2.0	3.0	7.0	6.5	7.0	---	---	---
20	3.0	2.0	2.5	6.0	2.0	3.5	7.5	6.0	6.5	---	---	---
21	3.0	1.5	2.0	6.0	2.5	3.5	9.0	5.5	7.0	---	---	---
22	3.0	1.0	2.0	2.5	1.0	2.0	7.0	5.0	6.5	---	---	---
23	3.0	1.5	2.0	2.5	1.5	1.5	6.5	5.5	6.0	---	---	---
24	4.0	2.5	3.5	3.5	.5	1.5	6.0	5.5	5.5	---	---	---
25	3.5	2.0	3.0	3.5	1.5	2.5	5.5	5.0	5.5	---	---	---
26	2.5	1.5	2.0	4.0	1.5	2.5	9.5	5.0	7.0	---	---	---
27	1.5	1.0	1.0	4.0	1.5	3.0	11.5	7.0	9.5	---	---	---
28	1.5	1.0	1.0	4.0	2.0	3.5	10.5	9.0	9.5	---	---	---
29	1.5	.5	1.0	2.0	.0	.5	13.0	8.5	10.5	---	---	---
30	---	---	---	.5	.0	.0	11.5	10.0	10.5	---	---	---
31	---	---	---	2.5	.0	.5	---	---	---	---	---	---
MONTH	4.0	.0	1.5	6.0	.0	1.5	13.0	.0	5.5			

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---				---	---	---	19.0	18.0	18.0
2	---	---	---				---	---	---	18.0	17.0	17.5
3	---	---	---				---	---	---	18.5	17.0	17.5
4	---	---	---				---	---	---	18.5	18.0	18.0
5	---	---	---				---	---	---	18.0	17.0	17.5
6	---	---	---				---	---	---	17.0	16.0	16.5
7	17.5	16.5	17.0				---	---	---	16.0	15.5	16.0
8	17.5	16.5	17.5				---	---	---	15.5	14.5	15.0
9	17.5	17.5	17.5				21.0	20.0	20.5	14.5	14.5	14.5
10	17.5	17.0	17.5				21.0	19.5	20.5	14.5	14.5	14.5
11	17.5	16.0	17.0				19.5	19.5	19.5	16.0	14.5	15.0
12	17.5	16.0	17.0				21.0	19.5	20.0	16.0	16.0	16.0
13	17.5	16.5	17.0				22.5	20.0	21.0	16.0	15.5	16.0
14	17.5	17.0	17.5				21.5	20.5	21.0	16.0	15.5	15.5
15	17.0	16.5	16.5				22.0	20.5	21.0	16.0	15.5	15.5
16	17.0	16.0	16.5				22.5	20.0	21.0	15.5	14.5	15.0
17	16.0	15.5	16.0				21.5	20.5	21.0	14.5	13.5	14.0
18	16.5	16.0	16.0				20.5	19.5	19.5	13.5	13.0	13.0
19	17.5	16.5	17.0				19.5	18.5	19.0	13.0	12.0	12.5
20	17.5	17.0	17.5				18.5	18.5	18.5	13.0	12.0	12.5
21	17.5	17.0	17.5				18.5	17.5	17.5	13.5	13.0	13.0
22	17.5	16.0	16.5				17.5	16.5	17.0	13.5	13.0	13.0
23	17.0	16.5	16.5				17.0	17.0	17.0	15.0	13.0	14.0
24	17.0	16.5	16.5				17.5	17.0	17.0	16.5	15.0	15.5
25	17.5	16.5	17.0				17.0	17.0	17.0	17.5	16.0	16.5
26	17.5	17.0	17.5				17.0	16.5	17.0	17.5	16.0	17.0
27	17.5	17.0	17.5				17.0	16.5	16.5	16.0	14.5	15.0
28	---	---	---				18.0	16.0	17.0	14.5	13.5	14.0
29	---	---	---				18.5	17.5	18.0	13.5	12.5	13.0
30	---	---	---				20.0	18.5	19.0	12.5	12.0	12.0
31	---	---	---				19.5	19.0	19.0	---	---	---
MONTH	17.5	15.5	17.0				22.5	16.0	19.0	19.0	12.0	15.0

01447680 TUNKHANNOCK CREEK NEAR LONG POND, PA

LOCATION.--Lat 41°03'55", long 75°31'14", Monroe County, Hydrologic Unit 02040106, on left bank 0.6 mi (1.0 km) downstream from unnamed tributary, 0.9 mi (1.4 km) downstream from bridge on Legislative Route 45040, 3 mi (5 km) west of Long Pond, and 5 mi (8 km) upstream from mouth.

DRAINAGE AREA.--18.0 mi² (46.6 km²). At site used prior to July 7, 1966, 16.8 mi² (43.5 km²).

PERIOD OF RECORD.--March 1965 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,804.83 ft (550.112 m) National Geodetic Vertical Datum of 1929. Prior to July 7, 1966, nonrecording gage at site 0.8 mi (1.3 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. Diversion above station, since October 1969, to Wild Creek Basin. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 47.7 ft³/s (1.351 m³/s), 35.96 in/yr (913 mm/yr), adjusted for diversion since October 1969.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 679 ft³/s (19.2 m³/s) Apr. 6, 1984, gage height, 4.76 ft (1.451 m), minimum discharge 3.0 ft³/s (0.085 m³/s) Mar. 11, 1969, gage height, 1.84 ft (0.561 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.66 m³/s) revised and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 14	1800	320	9.06	3.61	1.100	Apr. 6	0630	*679	19.2	*4.76	1.451
Feb. 16	0930	260	7.36	3.36	1.024	May 30	1500	330	9.35	3.65	1.113

Minimum daily discharge, 3.5 ft³/s (0.099 m³/s) Oct. 10.

DICHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	12	72	63	34	55	51	60	223	179	49	26
2	6.3	11	59	57	34	51	54	56	164	189	45	27
3	5.6	9.9	51	55	28	48	60	56	124	157	42	28
4	5.3	9.6	48	54	47	47	74	144	97	127	39	26
5	5.0	9.8	49	54	58	45	406	176	84	103	39	24
6	4.7	9.1	60	53	49	46	643	143	72	90	38	23
7	3.9	9.3	76	48	45	46	438	99	67	101	38	22
8	4.1	9.5	76	43	41	43	272	88	61	106	38	20
9	3.6	9.1	71	39	33	43	205	109	57	101	37	19
10	3.5	9.4	67	38	27	43	153	101	52	85	38	19
11	3.7	13	57	37	31	41	126	84	47	78	38	18
12	6.[illegible]	17	65	35	51	37	109	70	44	94	38	18
13	[illegible]	22	209	33	65	36	100	69	40	96	37	17
14	35	22	308	31	85	35	93	72	41	87	35	16
15	35	22	289	32	213	38	103	70	39	72	32	16
16	30	40	227	32	256	41	132	62	39	67	31	16
17	24	51	178	35	220	45	154	57	38	88	31	15
18	18	50	130	33	152	44	143	54	53	109	29	15
19	25	42	105	33	108	44	119	54	75	103	29	14
20	32	34	78	34	91	49	99	56	74	91	29	13
21	31	52	75	36	80	69	83	60	53	77	28	13
22	24	59	78	38	70	94	78	57	38	67	27	13
23	22	57	78	39	64	80	73	55	33	59	28	13
24	34	47	82	41	84	65	77	77	36	53	28	13
25	44	51	83	42	89	56	86	71	71	48	27	13
26	39	65	82	41	76	50	83	54	88	45	25	12
27	29	64	76	39	68	44	72	47	75	53	24	12
28	24	63	65	37	62	41	63	50	49	60	23	12
29	17	73	69	35	57	38	65	217	36	68	22	12
30	16	77	66	32	---	47	65	320	126	65	22	12
31	14	---	63	35	---	51	---	288	---	57	26	---
TOTAL	565.4	1019.7	3090	1254	2316	1512	4279	2976	2096	2775	1012	517
MEAN	18.2	34.0	99.7	40.5	79.9	48.8	143	96.0	69.9	89.5	32.6	17.2
MAX	44	77	308	63	256	94	643	320	223	189	49	28
MIN	3.5	9.1	48	31	27	35	51	47	33	45	22	12
+	.33	.38	.54	.50	.52	.49	.55	.53	.53	.53	.47	.40
MEAN‡	18.5	34.4	100	41.0	80.4	49.3	144	96.5	70.4	90.0	33.1	17.6
CFSM‡	1.03	1.91	5.56	2.28	4.47	2.74	8.00	5.36	3.91	5.00	1.84	.98
IN‡	1.17	2.16	6.29	2.58	5.06	3.10	9.05	6.07	4.42	5.66	2.08	1.11

CAL YR 1983 TOTAL 23417.5 MEAN 64.2 MAX 508 MIN 3.5 MEAN‡ 65.4 CFSM‡ 3.64 IN‡ 49.38
WTR YR 1984 TOTAL 23414.1 MEAN 64.0 MAX 643 MIN 3.5 MEAN‡ 64.6 CFSM‡ 3.59 IN‡ 48.75

+ Diversion above station to Wild Creek basin, equivalent in cubic feet per second, furnished by the city of Bethelem.
‡ Adjusted for division.

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA

LOCATION.--Lat 41°05'05", long 75°36'21", Carbon County, Hydrologic Unit 02040106, on left bank 50 ft (15 m) downstream from bridge on State Highway 940, 500 ft (150 m) downstream from Shingle Mill Run, and 1.5 mi (2.4 km) southwest of Blakeslee.

DRAINAGE AREA.--118 mi^2 (306 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,511.23 ft (460.623 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 16, 1962, nonrecording gage at site 50 ft (15 m) upstream at same datum.

REMARKS.--Records good. Occasional regulation by Pocono Lake about 5.0 mi (8.0 km) upstream and minor diversion from Tunkhannock Creek basin into Wild Creek basin.

AVERAGE DISCHARGE.--23 years, 265 ft^3/s (7.505 m^3/s), 30.47 in/yr (774 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,920 ft^3/s (253 m^3/s) Apr. 5, 1984, gage height, 12.16 ft (3.706 m), from rating curve extended above 4,200 ft^3/s (120 m^3/s) on basis of slope-area measurement at gage height 19.41 ft (5.916 m); minimum, 22 ft^3/s (0.62 m^3/s) Sept. 24, 25, 1964, gage height, 1.51 ft (0.460 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 19, 1955, reached a stage of 19.41 ft (5.916 m), from floodmark, discharge, 35,300 ft^3/s (1,000 m^3/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft^3/s (45.3 m^3/s) and maximum (*).

Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)
Dec. 14	0200	3930	111	8.30	2.530
Feb. 15	2200	2930	83.0	7.29	2.222
Apr. 5	2200	*8920	253	*12.16	3.706
May 29	1800	3730	106	8.11	2.472

Minimum daily discharge, 39 ft^3/s (1.10 m^3/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	67	366	195	119	281	238	305	1120	846	165	109
2	44	64	273	190	188	246	259	274	748	842	160	95
3	43	63	231	196	118	225	309	277	554	550	154	89
4	43	60	225	186	202	204	435	985	460	387	147	89
5	42	58	240	182	218	200	5280	968	389	302	151	89
6	42	55	336	178	180	191	5540	685	337	324	149	82
7	40	54	567	174	143	187	2450	493	309	1310	149	74
8	39	54	435	164	127	180	1400	473	283	968	183	68
9	41	53	362	153	110	173	937	673	254	536	154	65
10	42	60	295	148	104	168	688	594	231	366	137	64
11	41	81	248	141	114	162	563	466	209	403	132	64
12	60	107	408	137	173	155	490	397	188	606	133	64
13	93	102	2770	131	241	157	449	377	174	425	133	60
14	269	91	3480	128	470	162	422	394	177	318	127	59
15	197	102	2050	125	2180	156	469	365	179	255	123	59
16	126	282	1270	121	2420	174	681	322	166	239	126	58
17	95	298	857	119	1470	198	910	288	159	243	153	57
18	83	228	601	118	897	196	824	263	218	445	135	54
19	156	169	456	115	664	199	705	263	288	498	122	51
20	156	141	338	112	645	220	619	271	256	358	157	50
21	118	533	275	110	520	374	518	329	202	283	155	49
22	92	460	263	110	405	597	426	315	163	240	127	47
23	95	306	251	110	341	487	403	323	142	207	143	46
24	210	225	241	140	636	356	406	416	161	190	156	50
25	200	457	230	207	696	290	485	350	242	166	134	48
26	148	461	221	185	516	251	459	284	233	148	113	47
27	120	379	217	162	387	230	388	260	196	238	100	44
28	100	355	212	147	345	258	333	286	157	290	91	47
29	86	537	207	132	330	302	347	2670	135	256	84	48
30	77	486	203	121	---	279	328	2990	541	217	85	48
31	71	---	199	117	---	253	---	1850	---	187	134	---
TOTAL	3011	6388	18327	4554	14959	7511	27761	19206	8871	12643	4212	1874
MEAN	97.1	213	591	147	516	242	925	620	296	408	136	62.5
MAX	269	537	3480	207	2420	597	5540	2990	1120	1310	183	109
MIN	39	53	199	110	104	155	238	260	135	148	84	44
CFSM	.82	1.81	5.01	1.25	4.37	2.05	7.84	5.25	2.51	3.46	1.15	.53
IN.	.95	2.01	5.78	1.44	4.72	2.37	8.75	6.05	2.80	3.99	1.33	.59

CAL YR 1983 TOTAL 134349 MEAN 368 MAX 5190 MIN 30 CFSM 3.12 IN. 42.35
WTR YR 1984 TOTAL 129317 MEAN 353 MAX 5540 MIN 39 CFSM 2.99 IN. 40.77

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June 1980 to current year.

INSTRUMENTATION.--Temperature recorder since June 1980

REMARKS.--Interruptions in the daily record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 27.0°C July 17-19, 1982; minimum, 0.0°C on many days during winter periods.

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	17.0	13.5	15.5	8.0	4.5	6.0	3.0	2.0	3.0	1.5	.5	1.0
2	15.5	14.0	---	9.5	6.0	7.5	2.5	1.5	2.0	1.5	1.0	1.0
3	---	---	---	9.5	8.0	8.5	2.5	1.5	2.0	1.5	1.0	1.5
4	17.5	17.0	17.0	8.0	5.5	6.5	2.0	1.5	2.0	3.0	1.5	2.5
5	18.5	15.5	17.0	6.5	5.0	5.5	3.0	2.0	2.5	3.0	2.0	2.5
6	17.0	15.0	16.0	6.0	4.5	5.5	3.5	2.5	3.0	2.5	2.0	2.0
7	14.5	12.0	13.5	8.0	5.5	7.0	3.0	1.5	2.0	2.0	.5	1.0
8	14.5	10.5	12.5	8.0	5.0	6.5	1.5	1.0	1.0	1.0	.5	1.0
9	13.5	12.0	12.5	8.0	4.5	6.5	1.5	1.0	1.5	1.5	.5	1.0
10	13.0	12.0	12.5	8.0	5.0	6.5	2.5	1.5	2.0	2.5	.0	1.0
11	12.5	11.0	11.5	8.5	6.5	7.5	2.0	1.0	1.5	1.0	.0	.5
12	15.0	12.0	13.5	6.5	4.0	5.0	3.0	1.5	2.0	.5	.0	.0
13	16.5	14.5	15.5	5.5	3.0	4.0	3.5	3.0	3.0	.5	.0	.5
14	15.5	13.5	14.5	4.5	3.0	3.5	4.0	3.5	3.5	1.5	.0	1.0
15	14.5	12.0	13.5	5.0	4.0	4.5	5.0	4.0	4.5	1.0	.0	.5
16	14.5	11.0	12.5	5.5	4.5	5.0	4.5	3.5	4.0	.0	.0	.0
17	13.0	12.0	12.5	4.5	3.5	4.0	3.5	2.5	3.0	.5	.0	.5
18	12.5	11.5	12.0	4.5	3.0	3.5	2.5	2.0	2.0	.5	.0	.5
19	13.5	11.5	12.0	5.0	3.5	4.5	2.0	1.0	1.5	1.0	.0	.5
20	12.5	10.5	11.5	8.0	4.0	5.5	1.5	1.0	1.0	.0	.0	.0
21	11.5	9.0	10.0	8.0	5.5	6.5	1.5	.5	1.0	.0	.0	.0
22	10.5	8.0	9.0	6.5	5.5	6.0	2.5	1.0	2.0	.0	.0	.0
23	10.5	9.5	9.5	7.0	5.5	6.0	1.5	1.0	1.5	.0	.0	.0
24	12.0	10.5	11.0	7.0	6.5	7.0	1.5	.0	1.0	.5	.0	.0
25	11.0	10.0	10.5	7.0	4.5	5.0	.5	.0	.0	1.0	.0	.5
26	10.0	8.5	9.5	5.0	4.5	4.5	.5	.0	.0	2.0	1.0	1.0
27	9.0	8.0	8.5	5.5	4.5	5.0	1.5	.5	1.0	2.5	1.0	1.5
28	10.5	7.5	9.0	4.5	4.0	4.5	1.5	.5	1.0	1.5	.5	1.0
29	9.5	6.5	8.5	5.0	4.0	4.5	2.5	1.0	2.0	1.5	.5	1.0
30	8.5	5.5	6.5	4.0	3.5	3.5	1.5	.5	1.0	2.0	1.0	1.5
31	8.0	4.5	6.0	---	---	---	1.5	.5	1.0	1.5	.0	1.0
MONTH	18.5	4.5	12.0	9.5	3.0	5.5	5.0	.0	2.0	3.0	.0	1.0

01447720 TOBYHANNA CREEK NEAR BLAKESLEE, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

	FEBRUARY			MARCH			APRIL			MAY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	.0	.0	.0	2.0	1.0	1.0	---	---	---	13.5	12.0	12.5
2	.0	.0	.0	2.0	1.0	1.5	---	---	---	12.5	9.5	11.0
3	1.5	.0	.5	2.5	.5	1.5	---	---	---	11.5	10.0	11.0
4	2.5	.5	1.5	3.0	.5	1.5	---	---	---	12.5	10.5	11.5
5	2.0	1.5	2.0	2.0	1.0	1.5	---	---	---	13.0	11.0	12.0
6	2.5	1.0	1.5	3.0	1.5	2.0	---	---	---	13.0	11.0	12.0
7	1.5	.0	.5	3.5	1.0	2.0	---	---	---	12.5	11.5	12.0
8	1.0	.0	.5	2.5	.0	1.0	---	---	---	11.5	11.0	11.0
9	2.0	.0	1.0	2.5	.0	1.0	---	---	---	12.5	10.5	11.5
10	2.5	.5	1.5	2.0	.5	1.0	---	---	---	13.5	10.5	12.0
11	3.0	2.0	2.5	2.0	.0	1.0	---	---	---	13.5	11.5	12.5
12	4.0	2.5	3.0	2.5	.0	1.0	---	---	---	15.0	11.0	13.0
13	4.0	2.0	3.0	1.0	.5	.5	---	---	---	12.5	10.5	12.0
14	3.0	2.5	3.0	2.0	1.0	1.5	---	---	---	12.5	10.5	12.0
15	2.5	1.5	2.5	4.5	.5	2.0	---	---	---	12.5	10.5	11.5
16	2.5	1.5	2.0	4.0	1.5	2.5	---	---	---	12.0	10.0	11.0
17	2.5	2.0	2.0	4.5	2.0	3.0	---	---	---	14.0	9.5	11.0
18	3.0	2.0	2.5	4.5	2.5	3.0	---	---	---	11.0	10.0	11.0
19	3.0	2.5	2.5	6.0	2.5	4.0	---	---	---	14.5	11.0	12.5
20	3.0	2.5	3.0	3.5	2.5	3.0	9.0	8.0	8.5	15.0	12.5	13.5
21	3.0	2.0	2.5	5.0	3.0	3.5	10.5	8.0	8.5	16.5	14.5	15.0
22	4.0	2.0	2.5	6.0	3.0	4.0	9.5	7.5	8.5	20.0	16.5	17.5
23	4.5	2.5	3.5	7.0	3.0	4.5	8.5	8.0	8.0	17.0	14.0	15.5
24	5.0	3.5	4.0	5.0	2.0	3.0	8.0	7.5	8.0	20.0	15.0	17.0
25	4.5	2.5	3.5	6.0	2.0	4.0	8.0	7.5	7.5	20.0	16.5	18.0
26	3.5	2.0	2.5	7.0	3.0	4.5	11.5	6.5	9.0	19.5	16.0	17.5
27	3.5	2.0	2.5	4.5	2.5	3.0	13.5	8.5	11.0	19.5	16.0	17.5
28	2.5	2.0	2.5	6.0	2.5	3.0	12.5	11.0	11.5	19.5	16.0	17.0
29	2.5	1.0	2.0	---	---	---	14.5	10.0	12.0	16.0	14.0	15.0
30	---	---	---	---	---	---	13.5	12.0	12.5	16.0	14.0	15.0
31	---	---	---	---	---	---	---	---	---	14.0	13.0	13.5
MONTH	5.0	.0	2.0	7.0	.0	2.5	14.5	6.5	9.5	20.0	9.5	13.5

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.5	12.5	13.5	23.0	18.0	21.0	---	---	---	20.0	16.0	18.0
2	15.0	13.0	14.0	21.0	19.5	20.5	---	---	---	20.0	16.0	18.0
3	15.0	13.0	14.0	20.0	19.5	20.0	---	---	---	21.0	17.5	19.5
4	16.0	12.5	14.0	21.0	19.5	20.5	---	---	---	19.5	16.5	18.5
5	18.0	14.0	15.0	22.5	20.0	21.5	---	---	---	17.5	14.5	16.0
6	20.0	15.5	17.5	21.0	20.0	20.5	---	---	---	16.0	13.0	14.5
7	21.5	16.0	18.5	21.0	19.5	20.0	---	---	---	16.5	12.0	14.5
8	22.5	17.5	20.0	21.0	19.5	20.5	---	---	---	17.5	13.0	15.0
9	24.0	19.5	21.0	20.5	18.0	19.0	---	---	---	17.0	14.0	15.5
10	---	---	---	19.5	18.0	19.0	---	---	---	17.5	15.0	16.5
11	---	---	---	---	---	---	---	---	---	20.5	16.0	18.0
12	---	---	---	---	---	---	---	---	---	19.5	16.5	18.0
13	---	---	---	---	---	---	---	---	---	18.5	14.5	17.0
14	---	---	---	---	---	---	---	---	---	18.5	17.0	17.5
15	---	---	---	---	---	---	---	---	---	16.5	13.5	15.5
16	---	---	---	---	---	---	24.0	21.5	22.5	14.5	12.0	13.0
17	---	---	---	---	---	---	22.5	21.5	22.0	15.0	11.0	13.0
18	---	---	---	---	---	---	21.5	20.5	20.5	15.0	11.0	13.0
19	---	---	---	---	---	---	20.5	19.5	20.0	15.5	11.5	13.5
20	---	---	---	---	---	---	19.5	19.0	19.5	17.0	13.0	15.0
21	---	---	---	---	---	---	---	---	---	16.5	14.5	15.5
22	---	---	---	---	---	---	---	---	---	16.0	12.5	14.5
23	---	---	---	---	---	---	---	---	---	17.5	14.5	16.0
24	---	---	---	---	---	---	---	---	---	18.5	16.5	17.5
25	---	---	---	---	---	---	---	---	---	19.0	16.5	17.5
26	---	---	---	---	---	---	---	---	---	17.5	14.5	16.5
27	---	---	---	---	---	---	---	---	---	14.0	12.0	12.5
28	21.5	17.5	19.0	---	---	---	---	---	---	11.5	11.0	11.0
29	21.0	17.0	19.0	---	---	---	---	---	---	12.5	11.0	11.5
30	22.5	16.5	19.5	---	---	---	22.5	19.0	20.5	12.5	10.0	11.5
31	---	---	---	---	---	---	22.0	17.5	19.5	---	---	---
MONTH	24.0	12.5	17.0	23.0	18.0	20.5	24.0	17.5	20.5	21.0	10.0	15.5

01447800 LEHIGH RIVER BELOW FRANCIS E. WALTER LAKE NEAR WHITE HAVEN, PA

LOCATION.--Lat 41°06'17", long 75°43'57", Luzerne County, Hydrologic Unit 02040106, on right bank 0.7 mi (1.1 km) downstream from Franics E. Walter Lake, 2.0 mi (3.2 km) upstream from Fawn Run, and 4 mi (6.4 km) northeast of White Haven.

DRAINAGE AREA.--290 mi^2 (751 km^2).

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1962 published as "below Bear Creek Reservoir," October 1962 to September 1971 published as "below Francis E. Walter Reservoir."

GAGE.--Water-stage recorder. Datum of gage is 1,212.95 ft (369.707 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good. Flow regulated by Francis E. Walter Lake (station 01447780) 0.7 mi (1.1 km) upstream since February 1961. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 622 ft^3/s (17.62 m^3/s), 29.06 in/yr (738 mm/yr), adjusted for storage since February 1961.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,800 ft^3/s (391 m^3/s) Dec. 21, 1957, gage height, 9.85 ft (3.002 m), from rating curve extended above 6,100 ft^3/s (170 m^3/s); minimum, 1.3 ft^3/s (0.037 m^3/s) Nov. 14, 1961, result of shutoff at lake; minimum gage height, 1.86 ft (0.567 m) Sept. 16, 1964; minimum daily discharge, 22 ft^3/s (0.62 m^3/s) July 20-23, 1965.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 1955 reached a discharge of 54,200 ft^3/s (1,530 m^3/s) based on slope-area measurement at site 4.9 mi (7.9 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,870 ft^3/s (251 m^3/s) May 31, gage height, 8.69 ft (2.649 m); minimum daily, 53 ft^3/s (1.50 m^3/s) Oct. 5-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	158	1550	450	240	1060	624	842	6310	771	240	171
2	73	158	924	430	220	704	590	661	3320	1660	322	171
3	73	158	672	410	206	642	904	687	3130	2120	313	171
4	60	133	675	390	173	636	1330	2200	2250	1810	228	171
5	53	118	950	375	181	629	873	2500	1690	1350	231	140
6	53	118	1020	355	652	578	968	2000	1070	705	316	118
7	53	118	1430	337	871	550	5380	1500	772	1530	330	118
8	53	118	1640	325	452	468	7850	1200	709	3200	364	118
9	53	102	1150	310	332	415	8050	1920	699	1600	295	118
10	54	120	690	295	327	385	6720	1760	609	1130	231	104
11	54	177	700	280	324	360	4000	1210	275	866	233	95
12	54	177	925	270	331	335	2300	974	346	1700	236	96
13	55	178	169	260	544	319	1560	1300	336	1120	268	97
14	421	180	1330	250	813	330	1200	1510	375	645	286	248
15	685	206	5390	238	938	350	1170	1170	376	646	282	413
16	339	426	6620	226	3300	383	1330	933	447	583	282	123
17	194	663	5670	220	5190	392	2060	831	438	501	320	84
18	111	472	3020	212	4780	400	2120	691	368	672	345	85
19	222	227	2630	202	1960	576	1990	563	452	993	343	85
20	321	309	1700	196	1990	667	1670	577	534	908	340	85
21	337	984	1040	202	2270	1000	1430	1300	384	525	340	85
22	329	1470	860	220	2030	1730	1410	1220	367	524	271	85
23	318	912	740	240	1390	1520	1120	922	491	469	235	85
24	231	648	660	265	1460	972	993	1190	383	340	298	85
25	245	975	630	622	1050	974	1280	1030	361	340	338	85
26	344	1290	600	627	1110	957	1460	723	451	339	331	86
27	340	1280	580	297	1800	813	1240	734	447	403	171	87
28	257	1170	550	168	1480	742	920	867	309	559	96	99
29	159	1440	520	173	1280	856	945	1010	233	558	133	113
30	160	1690	500	180	---	925	1070	1600	376	463	134	113
31	159	---	470	210	---	893	---	6650	---	297	150	---
TOTAL	5933	16175	46005	9235	37694	21561	64557	42275	28308	29327	8302	3734
MEAN	191	539	1484	298	1300	696	2152	1364	944	946	268	124
MAX	685	1690	6620	627	5190	1730	8050	6650	6310	3200	364	413
MIN	53	102	169	168	173	319	590	563	233	297	96	84
MEAN‡	204	535	1485	289	1397	683	2159	1622	699	926	272	119
CFSM‡	.70	1.84	5.12	1.00	4.51	2.36	7.44	5.69	2.41	3.19	.94	.41
IN‡	.80	2.09	5.79	1.13	5.10	2.67	8.42	6.33	2.73	3.61	1.06	.46

CAL YR 1983 TOTAL 301933 MEAN 827 MAX 8230 MIN 40 MEAN‡ 831 CFSM‡ 2.86 IN‡ 38.91
WTR YR 1984 TOTAL 313106 MEAN 855 MAX 8050 MIN 53 MEAN‡ 858 CFSM‡ 2.96 IN‡ 40.19

‡ Adjusted for change in contents in Francis E. Walter Lake.

01448500 DILLDOWN CREEK NEAR LONG POND, PA

LOCATION.--Lat 41°02'08", long 75°32'37", Monroe County, Hydrologic Unit 02040106, on left bank 60 ft (18 m) upstream from bridge on Shucks Hill Road, 2.8 mi (4.5 km) upstream from Mud Run, 4 mi (6 km) northeast of Albrightsville, and 4.4 mi (7.1 km) west of Long Pond.

DRAINAGE AREA.--2.39 mi² (6.19 km²).

PERIOD OF RECORD.--October 1948 to current year.

REVISED RECORDS.--WSP 1392: 1949(M), 1950-53.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,665.07 ft (507.513 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 4.95 ft³/s (0.140 m³/s), 28.11 in/yr (714 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft³/s (17.8 m³/s) June 14, 1969, gage height, 3.995 ft (1.218 m), from rating curve extended above 300 ft³/s (8.50 m³/s) on basis of culvert and flow-over-dam computations of peak flow; minimum, 0.10 ft³/s (0.003 m³/s) Dec. 10, 1964, gage height, 0.55 ft (0.168 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 50 ft³/s (1.42 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 13	1845	100	2.83	2.51	0.765	May 29	0945	140	3.96	2.75	0.838
Apr. 5	1100	*241	6.83	*3.10	0.945	June 30	0600	77	2.18	2.37	0.722

Minimum discharge, 0.30 ft³/s (0.008 m³/s) Jan. 22, gage height 0.76 ft (0.232 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.64	.63	4.7	5.0	1.8	5.3	4.9	6.0	15	16	2.8	1.4
2	.58	.62	4.2	4.9	1.8	4.9	5.9	5.3	12	11	2.7	1.3
3	.50	.67	4.0	4.8	2.8	4.7	7.4	6.1	11	7.7	2.8	1.3
4	.47	.68	5.1	4.7	5.0	4.4	11	27	9.2	6.4	2.7	1.2
5	.64	.62	5.9	4.6	3.1	4.2	146	11	7.5	6.6	3.7	1.2
6	.56	.62	8.8	4.6	2.5	4.1	62	8.6	6.7	8.2	2.9	1.2
7	.47	.60	10	4.3	2.2	4.0	24	7.7	6.1	14	2.6	1.2
8	.45	.58	6.0	3.9	1.9	4.0	16	11	5.4	7.3	2.4	1.1
9	.47	.57	5.2	3.6	1.9	3.9	13	12	4.9	5.7	2.2	1.1
10	.47	.91	5.0	3.7	1.8	3.6	12	8.2	4.5	5.4	2.3	1.1
11	.46	1.6	4.5	3.5	2.6	3.7	11	7.2	4.1	11	2.2	1.1
12	1.9	.96	20	3.1	4.2	3.4	9.7	7.2	3.7	11	2.1	1.0
13	1.4	.73	83	3.0	4.8	3.4	9.0	6.7	3.6	6.0	1.9	1.0
14	3.5	.69	46	3.1	9.5	3.3	8.8	8.8	3.8	4.8	1.7	.99
15	.74	2.1	21	3.0	29	3.7	12	6.6	3.3	4.3	1.7	1.0
16	.59	5.4	17	2.9	16	4.4	16	6.0	3.1	12	2.1	.97
17	.56	1.8	12	2.8	11	4.2	12	5.4	3.5	5.8	2.5	.93
18	.77	1.5	10	2.7	9.8	4.1	11	5.2	7.4	8.2	1.8	.91
19	3.4	1.4	9.0	2.7	9.8	4.9	9.7	5.9	10	5.9	1.8	.90
20	.88	1.2	7.7	2.5	9.5	6.3	8.7	5.6	3.9	4.7	1.7	.88
21	.69	8.6	6.7	1.8	8.0	11	7.8	6.5	3.1	4.7	1.5	.85
22	.63	2.6	13	1.4	6.8	9.0	7.0	5.0	2.7	4.4	1.5	.82
23	1.7	2.2	12	2.0	6.4	5.9	7.8	6.9	2.5	3.9	2.6	.82
24	3.4	2.3	8.4	2.4	12	5.1	8.3	6.7	8.2	3.7	1.7	.82
25	1.0	6.4	7.0	2.7	8.3	5.0	9.8	4.7	12	3.3	1.5	.78
26	.88	3.6	6.1	2.8	6.6	4.8	7.3	4.3	3.9	3.1	1.4	.78
27	.78	3.6	5.5	2.7	5.9	4.5	6.4	4.0	3.0	9.1	1.4	.79
28	.73	4.0	8.3	2.6	5.7	4.7	6.0	5.3	2.7	5.6	1.3	.84
29	.67	9.8	12	2.3	5.6	4.9	8.0	76	2.6	3.8	1.4	.88
30	.64	5.5	6.6	2.2	---	4.2	6.7	39	31	3.4	1.6	.82
31	.64	---	5.4	2.1	---	4.1	---	22	---	3.1	3.1	---
TOTAL	31.21	72.48	380.1	98.4	196.3	147.7	485.2	347.9	200.4	210.1	65.6	30.08
MEAN	1.01	2.42	12.3	3.17	6.77	4.76	16.2	11.2	6.68	6.78	2.12	1.00
MAX	3.5	9.8	83	5.0	29	11	146	76	31	16	3.7	1.4
MIN	.45	.57	4.0	1.4	1.8	3.3	4.9	4.0	2.5	3.1	1.3	.78
CFSM	.42	1.01	5.15	1.33	2.83	1.99	6.78	4.69	2.79	2.84	.89	.42
IN.	.49	1.13	5.92	1.53	3.06	2.30	7.55	5.42	3.12	3.27	1.02	.47

CAL YR 1983 TOTAL 2484.42 MEAN 6.81 MAX 143 MIN .45 CFSM 2.85 IN. 38.67
WTR YR 1984 TOTAL 2265.47 MEAN 6.19 MAX 146 MIN .45 CFSM 2.59 IN. 35.26

01449000 LEHIGH RIVER AT LEHIGHTON, PA.

LOCATION.--Lat 40°49'45", long 75°42'20", Carbon County, Hydrologic Unit 02040106, on left bank 190 ft (58 m) downstream of highway bridge at East Weissport, 0.3 mi (0.5 km) upstream from Mahoning Creek.

DRAINAGE AREA.--591 mi² (1530 km²).

PERIOD OF RECORD.--December 1982 to current year. Daily gage height records, previously referred to as continuous records for water years 1946-1948. Miscellaneous measurements 1977-1978, 1980-1981, and annual maximum 1982.

GAGE.--Water-stage recorder. Datum of gage is 444.26 ft (135.410 m) National Geodetic Vertical Datum of 1929. Prior to December 1982, nonrecording gage at highway bridge 190 ft (58 m) upstream at same datum. Prior to August 1970, daily discharge station at this same site at datum 2.0 ft (0.759 m) higher.

REMARKS.--Records good. Flow regulated by Francis E. Walter Lake (station 01447780) since February 1961. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,200 ft³/s (600 m³/s) April 16, 1983, gage height, 11.82 ft (3.603 m), from rating curve extended above 16,000 ft³/s (453 m³/s); minimum, 147 ft³/s (4.17 m³/s) Sept. 15, 1983, gage height, and Oct. 8, 9, 1984, gage height, 1.40 ft (0.427 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,300 ft³/s (377 m³/s), April 6, gage height, 9.04 ft (2.755 m); minimum, 147 ft³/s (4.17 m³/s) Oct. 8, 9, gage height, 1.40 ft (0.427 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	288	2680	1300	520	1780	1690	1930	9910	2780	688	355
2	201	286	2160	1270	526	1450	1550	1510	5080	3090	681	360
3	185	288	1660	1330	634	1340	1980	1520	4620	3520	796	370
4	179	288	1760	1640	882	1250	2530	3800	3960	2950	668	360
5	171	252	1980	1380	747	1180	8580	4270	2780	2680	734	330
6	154	238	2170	1080	699	1120	9260	3390	2450	2000	721	314
7	151	235	2930	986	1100	1100	8200	2740	1920	2780	793	295
8	148	237	2880	918	880	1030	10500	2630	1730	4610	727	293
9	144	237	2570	907	714	980	10200	3080	1520	3050	776	290
10	142	229	1840	906	712	900	9030	3010	1400	2230	598	291
11	150	333	1730	957	754	860	5280	2450	1280	2090	585	283
12	200	451	2460	757	879	860	2960	2140	1180	2450	586	266
13	350	374	7940	700	1060	870	2840	2150	1080	2200	584	256
14	419	349	8420	670	2080	880	2400	2540	940	1800	607	253
15	953	387	8420	645	5440	910	2490	2240	975	1550	600	598
16	554	1070	9520	620	5980	920	2610	1870	940	1420	586	421
17	467	1120	8300	590	8450	990	3130	1760	976	1340	596	271
18	262	1060	4870	565	7370	1050	3290	1600	1230	1900	650	237
19	394	582	4130	540	3670	1150	3100	1410	1430	2400	641	235
20	525	528	3250	510	3520	1300	2700	1410	1200	1960	645	234
21	506	1790	2190	495	3390	1500	2500	1820	1040	1340	619	233
22	482	2210	2570	490	3390	2710	2300	2080	776	1260	603	226
23	504	1790	2620	485	2530	2780	2300	1820	915	1190	579	227
24	760	1260	2030	570	3100	2000	2340	2120	1160	1020	553	227
25	472	2050	1830	840	2510	1950	2550	2070	1580	880	598	227
26	519	2340	1730	1300	2370	1900	2410	1590	1210	783	577	226
27	524	2240	1680	935	2740	1770	2280	1560	1050	1050	555	223
28	502	2230	1790	602	2560	1750	1850	1610	956	1260	318	220
29	349	2860	2380	559	2420	1900	1970	6920	711	1130	314	220
30	296	2940	2120	530	---	1870	1900	5420	2350	1050	346	220
31	292	---	1330	520	---	1770	---	8910	---	862	355	---
TOTAL	11144	30542	103940	25597	71627	43820	116720	83370	58349	60625	18679	8563
MEAN	359	1018	3353	826	2470	1414	3891	2689	1945	1956	603	285
MAX	953	2940	9520	1640	8450	2780	10500	8910	9910	4610	796	598
MIN	142	229	1330	485	520	860	1550	1410	711	783	314	220

CAL YR 1983 TOTAL 642258 MEAN 1760 MAX 15100 MIN 142
WTR YR 1984 TOTAL 632976 MEAN 1729 MAX 10500 MIN 142

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA

LOCATION.--Lat 40°53'51", long 75°30'10", Monroe County, Hydrologic Unit 02040106, on right bank 20 ft (6 m) downstream from bridge on U.S. Highway 209 at Kresgeville, 0.2 mi (0.3 km) downstream from Middle Creek, and 13 mi (21 km) northeast of Lehighton.

DRAINAGE AREA.--49.9 mi^2 (129.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 659.72 ft (201.083 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good.

AVERAGE DISCHARGE.--18 years, 108 ft^3/s (3.059 m^3/s), 29.44 in/yr (748 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,060 ft^3/s (58.9 m^3/s) July 29, 1969, gage height, 9.21 ft (2.807 m), from rating curve extended above 800 ft^3/s (23 m^3/s); minimum daily, 12 ft^3/s (0.340 m^3/s) Oct. 30, 31, Nov. 3, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)			(ft^3/s)	(m^3/s)	(ft)	(m)
Dec. 13	2030	1460	41.3	7.78	2.371	May 29	2230	1220	34.6	7.30	2.225
Apr. 5	2215	*1630	46.2	*8.10	2.469						

Minimum daily discharge, 18 ft^3/s (0.51 m^3/s) Oct. 4, 5, 7-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	31	168	95	36	108	138	129	429	166	71	43
2	20	29	144	91	42	107	161	128	334	167	70	38
3	19	29	132	87	42	101	182	168	278	166	75	38
4	18	29	161	85	133	96	239	250	238	156	71	46
5	18	27	161	82	104	94	1160	370	203	157	87	38
6	19	26	163	78	81	92	1180	330	179	223	80	37
7	18	24	233	73	72	89	639	290	163	379	69	35
8	18	24	203	69	63	87	440	270	146	292	65	34
9	18	23	177	65	61	89	350	241	135	224	62	38
10	18	26	158	63	62	83	280	195	125	190	62	38
11	18	52	139	56	91	81	235	181	117	209	59	38
12	35	49	231	53	95	77	212	174	108	185	57	37
13	44	36	1090	51	97	78	190	162	104	146	56	34
14	30	32	1160	49	118	78	175	167	102	131	53	35
15	27	45	629	48	328	75	205	147	95	121	53	34
16	23	139	475	47	305	82	243	137	89	137	51	33
17	21	96	352	45	235	93	229	129	92	115	51	31
18	22	77	288	44	200	92	227	122	119	243	49	29
19	57	69	246	43	181	100	212	123	120	194	48	29
20	37	64	207	42	170	130	192	119	89	144	48	29
21	29	145	178	40	153	140	175	125	82	130	45	28
22	26	103	208	37	139	132	162	108	77	118	43	26
23	45	90	224	29	132	122	164	131	75	106	54	27
24	124	90	179	45	162	116	164	138	131	97	47	27
25	70	218	155	75	141	112	159	110	173	88	42	27
26	56	203	135	67	130	108	143	106	97	82	39	26
27	48	157	120	67	123	103	133	103	84	144	39	26
28	41	151	178	63	118	125	132	117	79	110	39	29
29	38	226	191	51	114	138	132	765	76	87	39	31
30	34	193	121	45	---	121	131	949	128	80	39	29
31	32	---	103	43	---	120	---	580	---	75	74	---
TOTAL	1051	2503	8309	1828	3728	3169	6384	7064	4267	4862	1737	990
MEAN	33.9	83.4	268	59.0	129	102	279	228	142	157	56.0	33.0
MAX	124	226	1160	95	328	140	1180	949	429	379	87	43
MIN	18	23	103	29	36	75	131	103	75	75	39	26
CFSM	.68	1.67	5.37	1.18	2.59	2.04	5.59	4.57	2.85	3.15	1.12	.66
IN.	.78	1.87	6.19	1.36	2.78	2.36	6.25	5.27	3.18	3.62	1.29	.74

CAL YR 1983 TOTAL 49645 MEAN 136 MAX 1550 MIN 16 CFSM 2.73 IN. 37.01
WTR YR 1984 TOTAL 47892 MEAN 131 MAX 1180 MIN 18 CFSM 2.63 IN. 35.70

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to September 1970, May 1971 to current year.

INSTRUMENTATION.--Temperature recorder October 1970, May 1971 to current year.

REMARKS.--Interruptions in the daily record were due to malfunction of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 31.5°C July 25, 1970; minimum, freezing point on several days during winter periods.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum observed, 19.0°C Sept. 25; minimum, 1.0°C many days during winter period.

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	13.5	12.5	13.0	7.0	5.0	6.0	6.0	5.0	5.0	2.0	1.0	1.5
2	15.5	13.5	14.5	8.5	6.5	7.5	4.5	4.0	4.5	2.5	2.0	2.5
3	16.0	14.0	15.0	9.0	8.0	8.5	5.0	4.0	4.5	3.5	2.5	3.0
4	15.5	13.5	15.0	9.0	7.0	8.0	4.5	4.0	4.5	4.0	3.5	3.5
5	16.5	14.5	15.5	6.5	6.0	6.0	6.0	4.5	5.5	4.0	4.0	4.0
6	15.5	14.0	15.0	6.0	5.5	5.5	6.5	6.0	6.5	4.5	4.0	4.5
7	14.0	12.0	13.0	8.0	6.0	7.0	6.5	4.5	5.5	4.5	2.5	4.0
8	12.5	11.0	12.0	8.0	6.0	7.0	4.5	4.0	4.5	2.5	1.0	1.5
9	13.0	11.5	12.5	8.0	5.5	7.0	5.0	4.0	4.5	2.5	1.5	1.5
10	12.5	12.0	12.0	8.0	6.0	7.0	6.0	5.0	5.5	3.5	2.5	3.0
11	12.0	11.0	11.0	8.5	8.0	8.0	5.5	4.5	5.0	3.5	1.5	2.0
12	13.0	11.5	12.5	8.0	5.0	6.5	5.5	4.5	5.0	1.5	1.0	1.0
13	15.0	13.5	14.0	5.0	4.0	4.5	8.0	5.5	6.5	1.0	1.0	1.0
14	15.0	12.5	14.0	4.5	3.5	4.0	8.0	7.5	8.0	1.0	1.0	1.0
15	12.0	11.0	11.5	6.0	4.5	5.0	8.5	8.0	8.0	1.0	1.0	1.0
16	11.0	10.0	10.5	8.0	6.0	7.0	7.5	6.5	7.0	1.0	1.0	1.0
17	11.5	10.5	11.0	7.0	6.0	6.5	6.5	5.0	5.5	1.0	1.0	1.0
18	11.5	10.5	11.0	6.0	5.0	5.5	4.5	3.5	4.0	1.0	1.0	1.0
19	12.0	11.0	11.5	8.0	6.0	7.0	4.5	3.0	4.0	1.5	1.0	1.0
20	11.0	9.5	10.5	10.0	7.0	8.0	3.0	2.0	2.5	1.0	1.0	1.0
21	9.5	8.0	8.5	10.0	8.5	9.5	2.0	1.0	1.5	1.0	1.0	1.0
22	8.0	6.5	7.5	8.5	7.0	8.0	3.0	2.0	2.5	1.0	1.0	1.0
23	10.0	8.0	8.5	8.0	7.0	7.5	3.0	2.0	2.5	1.0	1.0	1.0
24	11.5	10.0	11.0	9.0	8.0	8.5	2.0	1.0	2.0	1.0	1.0	1.0
25	11.5	10.0	10.5	9.0	6.0	7.0	1.0	1.0	1.0	1.0	1.0	1.0
26	10.5	9.5	10.0	7.0	5.5	6.5	1.0	1.0	1.0	1.5	1.0	1.0
27	9.5	8.5	8.5	7.5	6.0	7.0	1.0	1.0	1.0	2.0	1.5	1.5
28	9.5	7.5	8.5	7.0	6.0	6.5	1.5	1.0	1.0	2.0	2.0	2.0
29	10.0	8.0	9.5	7.5	6.0	7.0	2.0	1.5	2.0	2.0	1.5	2.0
30	8.0	6.0	7.0	6.5	6.0	6.0	2.0	1.5	1.5	2.0	1.5	1.5
31	6.5	5.0	6.0	---	---	---	1.0	1.0	1.0	3.0	1.5	2.5
MONTH	16.5	5.0	11.5	10.0	3.5	7.0	8.5	1.0	4.0	4.5	1.0	2.0

01449360 POHOPOCO CREEK AT KRESGEVILLE, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	1.0	1.0	2.0	1.0	2.0	7.5	3.5	5.5	12.0	9.5	10.5
2	1.0	1.0	1.0	2.5	1.0	2.0	7.5	4.0	6.0	12.0	8.5	10.5
3	1.0	1.0	1.0	2.5	1.5	2.0	9.0	5.0	7.0	10.0	8.5	9.0
4	2.5	1.0	1.5	3.5	1.0	2.5	7.0	6.5	6.5	11.0	9.0	10.0
5	3.5	2.0	2.5	3.5	2.0	2.5	8.0	6.5	7.0	12.5	9.0	11.0
6	3.5	2.5	3.0	4.0	3.0	3.5	7.5	6.0	7.0	11.5	9.0	10.5
7	3.0	1.5	2.0	5.0	3.0	4.0	6.5	6.0	6.0	10.5	9.0	10.0
8	1.5	1.0	1.0	3.0	1.5	2.0	8.5	5.5	7.0	---	---	---
9	2.0	1.0	1.5	1.5	1.0	1.5	9.0	5.5	7.0	---	---	---
10	3.0	1.5	2.5	1.5	1.0	1.0	9.0	5.5	7.5	---	---	---
11	3.5	3.0	3.0	2.0	1.0	1.5	10.0	6.0	8.0	---	---	---
12	5.0	3.5	4.5	2.0	1.0	1.5	11.0	7.0	9.0	---	---	---
13	5.5	4.0	5.0	2.0	1.0	1.5	9.5	8.0	8.5	---	---	---
14	5.5	5.0	5.5	4.0	1.0	2.5	8.5	8.0	8.0	---	---	---
15	5.5	4.5	5.0	5.0	1.5	3.5	8.0	8.0	8.0	---	---	---
16	6.5	5.0	5.5	5.5	3.5	4.5	8.0	8.0	8.0	---	---	---
17	5.5	5.0	5.5	5.0	4.0	4.5	10.0	8.0	9.0	---	---	---
18	7.0	5.5	6.0	5.5	4.5	5.0	10.0	7.5	9.0	---	---	---
19	5.5	5.0	5.5	7.0	5.0	5.5	9.5	8.5	9.0	---	---	---
20	6.0	5.0	5.5	8.0	4.0	6.5	10.0	8.5	9.5	---	---	---
21	5.0	4.5	5.0	7.5	5.0	6.0	11.5	8.0	9.5	---	---	---
22	6.0	3.5	5.0	5.5	4.5	5.0	9.0	6.5	8.0	---	---	---
23	6.0	4.0	5.0	5.5	4.5	5.0	8.5	7.5	7.5	---	---	---
24	8.0	6.0	7.0	6.5	3.5	5.0	8.0	7.5	8.0	---	---	---
25	6.5	5.0	6.0	6.0	5.0	5.5	9.5	8.0	8.5	---	---	---
26	4.5	3.0	4.0	8.0	5.0	6.5	13.0	7.0	10.0	---	---	---
27	3.5	2.5	3.5	7.5	4.0	6.0	13.5	9.0	11.5	---	---	---
28	3.5	3.5	3.5	7.5	3.0	5.0	11.5	9.5	10.5	---	---	---
29	3.5	2.5	3.0	3.0	1.0	1.5	14.5	10.0	12.0	---	---	---
30	---	---	---	4.0	2.0	3.5	12.5	10.5	11.0	---	---	---
31	---	---	---	6.5	4.0	5.0	---	---	---	---	---	---
31	---	---	---	6.5	4.0	5.0	---	---	---	---	---	---
MONTH	8.0	1.0	4.0	8.0	1.0	3.5	14.5	3.5	8.5	12.5	8.5	10.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	16.5	16.5	16.5	16.5	16.5	16.5	---	---	---
2	---	---	---	16.5	16.0	16.0	17.5	16.5	17.0	---	---	---
3	---	---	---	16.0	16.0	16.0	17.5	17.5	17.5	---	---	---
4	---	---	---	16.5	15.5	16.0	17.5	17.5	17.5	---	---	---
5	---	---	---	16.5	16.5	16.5	17.5	17.5	17.5	17.0	14.5	15.5
6	---	---	---	16.5	16.5	16.5	17.5	17.5	17.5	14.5	13.0	13.5
7	---	---	---	16.5	15.5	16.5	18.0	17.5	18.0	13.0	12.0	12.0
8	---	---	---	15.5	14.5	14.5	19.0	18.0	18.5	14.5	11.5	12.5
9	---	---	---	14.5	14.0	14.0	19.0	19.0	19.0	15.5	13.5	14.5
10	---	---	---	14.0	14.0	14.0	19.0	19.0	19.0	16.0	15.0	15.5
11	---	---	---	16.0	14.0	15.0	19.0	18.5	18.5	17.5	15.5	16.5
12	---	---	---	16.5	16.0	16.5	18.5	18.5	18.5	18.5	17.0	17.5
13	---	---	---	16.5	16.0	16.5	---	---	---	17.0	15.5	16.5
14	---	---	---	17.0	16.0	16.5	---	---	---	18.0	17.0	17.5
15	18.0	15.5	16.5	17.5	16.5	17.0	---	---	---	17.5	14.5	16.5
16	15.5	13.5	14.5	18.0	17.5	17.5	---	---	---	14.5	12.5	13.0
17	14.5	14.5	14.5	18.0	17.0	17.5	---	---	---	13.5	11.5	12.5
18	14.5	14.5	14.5	18.0	17.0	17.5	---	---	---	12.5	11.0	11.5
19	17.0	14.5	16.0	18.0	17.0	17.0	---	---	---	14.0	10.5	12.5
20	17.0	16.0	16.5	17.0	16.0	16.0	---	---	---	16.0	13.0	14.5
21	16.5	15.5	16.0	16.0	16.0	16.0	---	---	---	16.0	14.0	15.0
22	16.5	15.0	16.0	16.0	16.0	16.0	---	---	---	15.0	13.0	14.0
23	16.5	15.5	16.0	17.0	16.0	16.5	---	---	---	16.5	14.0	15.5
24	16.0	16.0	16.0	17.0	17.0	17.0	---	---	---	18.0	15.5	17.0
25	16.5	16.0	16.5	17.0	17.0	17.0	---	---	---	19.0	17.0	18.0
26	16.5	15.5	16.0	17.0	15.5	16.0	---	---	---	18.0	15.0	16.5
27	16.5	14.5	15.5	16.0	16.0	16.0	---	---	---	14.5	12.0	13.0
28	17.5	16.5	17.0	16.0	16.0	16.0	---	---	---	12.0	11.0	11.0
29	17.5	17.0	17.0	16.0	15.5	15.5	---	---	---	11.5	10.5	11.0
30	17.0	16.5	17.0	15.5	15.5	15.5	---	---	---	12.0	10.5	11.5
31	---	---	---	16.5	15.5	16.0	---	---	---	---	---	---
MONTH	18.0	13.5	16.0	18.0	14.0	16.0	19.0	16.5	18.0	19.0	10.5	14.5

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE, PA

LOCATION.--Lat 40°50'44", long 75°38'46", Carbon County, Hydrologic Unit 02040106, on right bank 0.1 mi (0.2 km) upstream from Sawmill Run, 0.45 mi (0.72 km) downstream from Beltzville Dam, 1.3 mi (2.1 km) upstream from Bull Run, and 2.3 mi (3.7 km) northeast of Parryville.

DRAINAGE AREA.--96.4 mi² (249.7 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 492.05 ft (149.977 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Wild Creek Reservoir (station 01449700) and Penn Forest Reservoir (station 01449400), 7.3 mi (11.7 km) and 10.0 mi (16.1 km) upstream, respectively, and Beltzville Lake (station 01449790), 0.45 mi (0.72 km) upstream. Figures of daily discharge do not include diversion from Wild Creek Reservoir to city of Bethlehem. Diversion from Tunkhannock Creek to Wild Creek basin above station since October 1969.

AVERAGE DISCHARGE.--17 years, 208 ft³/s (5.891 m³/s), 29.31 in/yr (744 mm/yr), adjusted for storage and diversion 1968-1981.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,740 ft³/s (49.3 m³/s) May 8, 1973, gage height, 5.59 ft (1.704 m); minimum, 0.90 ft³/s (0.025 m³/s) Oct. 11, 12, 1969, gage height, 2.12 ft (0.646 m), result of upstream shutoff.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,650 ft³/s (46.7 m³/s) May 9, gage height, 5.48 ft (1.670 m); minimum daily, 33 ft³/s (0.93 m³/s) Oct. 1-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	36	290	155	121	155	211	232	1430	97	149	42
2	33	36	258	154	88	139	211	184	1400	294	92	43
3	33	36	211	152	77	120	211	156	1380	436	62	42
4	33	36	211	152	77	120	324	510	1080	436	62	85
5	33	36	259	152	77	199	371	1350	378	435	62	79
6	33	36	287	119	130	218	608	815	272	364	158	61
7	94	36	289	103	155	136	1350	401	300	358	205	48
8	148	36	287	104	109	120	1330	411	232	430	132	36
9	148	36	219	130	74	138	1370	438	199	430	111	36
10	148	38	173	142	78	158	1400	400	199	307	101	36
11	148	36	173	118	92	158	1380	219	199	433	95	36
12	148	36	228	106	92	123	1410	219	153	430	95	36
13	89	36	109	79	121	106	1030	219	129	300	77	36
14	36	36	570	66	236	132	654	331	153	219	50	36
15	36	37	1240	66	221	126	405	308	141	218	41	36
16	36	36	1310	85	916	134	405	258	129	168	41	38
17	36	36	1350	95	736	155	338	202	129	156	43	37
18	36	36	1330	110	290	155	258	166	141	206	43	37
19	36	36	1340	117	290	122	297	184	202	375	43	37
20	36	36	1040	95	290	106	379	184	169	272	88	36
21	36	36	587	84	207	169	405	184	112	162	95	37
22	36	36	405	84	132	199	306	184	89	162	62	38
23	37	36	259	66	120	199	253	184	75	187	74	38
24	37	36	155	58	196	199	254	184	76	199	73	38
25	36	38	155	112	211	199	253	184	298	149	60	38
26	36	38	155	155	211	169	207	184	332	126	60	38
27	36	38	289	118	379	155	169	184	145	126	60	45
28	36	38	305	87	302	230	169	184	145	126	54	35
29	36	167	346	87	252	344	169	390	113	126	51	40
30	36	290	255	87	---	284	184	695	97	176	41	40
31	36	---	155	120	---	211	---	1450	---	199	41	---
TOTAL	1771	1474	14240	3358	6280	5178	16311	11196	9897	8102	2421	1260
MEAN	57.1	49.1	459	108	217	167	544	361	330	261	78.1	42.0
MAX	148	290	1350	155	916	344	1410	1450	1430	436	205	85
MIN	33	36	109	58	74	106	169	158	75	97	41	35

CAL YR 1983 TOTAL 69797 MEAN 191 MAX 1350 MIN 20
WTR YR 1984 TOTAL 81488 MEAN 223 MAX 1450 MIN 33

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE, PA-Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to current year.

INSTRUMENTATION.--Temperature recorder October 1968 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.5°C on several days during July, August 1970; minimum, freezing point December 9, 1969.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum observed, 17.5°C July 10; minimum, 2.0°C Dec. 28, 31, Jan. 1-3, 15, 16, 21-23.

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.5	15.5	16.0	12.5	12.0	12.0	8.5	8.0	8.5	2.0	2.0	2.0
2	17.0	15.5	16.0	12.5	12.0	12.0	8.0	8.0	8.0	2.0	2.0	2.0
3	17.0	15.5	16.0	12.5	12.0	12.0	8.0	8.0	8.0	2.5	2.0	2.0
4	17.0	16.0	16.0	12.0	11.5	12.0	8.0	7.5	7.5	2.5	2.5	2.5
5	16.5	15.0	16.0	12.0	11.0	11.5	7.5	7.5	7.5	3.0	2.5	2.5
6	16.5	15.0	15.5	11.5	11.0	11.5	7.5	7.5	7.5	2.5	2.5	2.5
7	16.5	15.5	16.0	12.0	11.0	11.5	7.0	7.0	7.0	3.0	2.5	2.5
8	16.5	16.0	16.0	12.0	11.0	11.0	7.0	6.5	7.0	2.5	2.5	2.5
9	16.5	16.0	16.5	12.0	11.0	11.0	6.5	6.5	6.5	2.5	2.5	2.5
10	17.0	16.0	16.5	11.5	11.0	11.0	6.5	6.5	6.5	3.0	2.5	2.5
11	16.5	16.0	16.5	11.5	11.0	11.0	6.5	6.5	6.5	3.0	2.5	2.5
12	17.0	16.0	16.5	11.0	10.0	10.5	6.5	6.0	6.0	2.5	2.5	2.5
13	16.5	15.5	16.0	11.0	10.0	10.0	6.5	6.5	6.5	2.5	2.5	2.5
14	16.0	14.5	15.0	10.5	10.0	10.0	6.5	6.5	6.5	2.5	2.5	2.5
15	16.0	15.0	15.5	10.0	10.0	10.0	6.5	6.0	6.0	2.5	2.0	2.5
16	16.0	15.0	15.5	10.5	10.0	10.0	6.0	6.0	6.0	2.5	2.0	2.5
17	15.5	15.0	15.5	10.0	9.5	9.5	6.0	6.0	6.0	2.5	2.5	2.5
18	15.5	15.5	15.5	10.0	9.5	9.5	6.0	6.0	6.0	2.5	2.5	2.5
19	16.0	15.0	15.5	10.0	9.5	9.5	6.0	5.5	5.5	2.5	2.5	2.5
20	15.5	15.0	15.0	10.0	9.5	9.5	5.5	5.5	5.5	2.5	2.5	2.5
21	15.5	14.5	14.5	10.0	9.0	9.5	5.0	5.0	5.0	2.5	2.0	2.5
22	15.0	14.0	14.5	10.0	9.0	9.5	5.0	5.0	5.0	2.5	2.0	2.0
23	14.5	14.5	14.5	10.0	9.0	9.5	5.0	4.5	4.5	2.5	2.0	2.5
24	15.0	14.0	14.5	9.5	9.5	9.5	4.5	4.0	4.5	2.5	2.5	2.5
25	14.0	14.0	14.0	9.5	8.5	9.0	4.0	3.5	3.5	2.5	2.5	2.5
26	14.0	13.0	13.5	9.5	9.0	9.0	3.5	3.0	3.5	2.5	2.5	2.5
27	13.5	13.0	13.0	9.5	8.5	9.0	3.0	3.0	3.0	3.0	2.5	2.5
28	13.5	12.5	13.0	9.0	8.5	8.5	3.0	2.0	2.5	3.0	2.5	2.5
29	13.5	12.5	13.0	9.0	8.5	8.5	3.0	2.5	2.5	3.0	2.5	2.5
30	13.0	12.0	12.5	8.5	8.5	8.5	2.5	2.5	2.5	3.0	2.5	3.0
31	13.0	12.0	12.0	---	---	---	2.5	2.0	2.5	3.0	2.5	3.0
MONTH	17.0	12.0	15.0	12.5	8.5	10.0	8.5	2.0	5.5	3.0	2.0	2.5

01449800 POHOPOCO CREEK BELOW BELTZVILLE DAM NEAR PARRYVILLE, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	3.0	2.5	2.5	3.5	3.0	3.0	4.0	3.5	4.0	8.5	7.5	8.0
2	3.0	2.5	2.5	3.5	3.0	3.0	4.0	4.0	4.0	9.5	8.0	8.5
3	3.0	2.5	2.5	3.0	3.0	3.0	4.5	4.0	4.0	10.5	8.5	9.5
4	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.0	4.5	11.0	8.0	9.5
5	3.0	3.0	3.0	3.0	2.5	3.0	5.0	4.5	4.5	8.5	8.0	8.0
6	3.0	3.0	3.0	3.0	2.5	3.0	5.0	4.5	5.0	10.5	8.5	9.5
7	3.0	3.0	3.0	3.0	3.0	3.0	4.5	4.5	4.5	10.5	10.0	10.5
8	3.5	3.0	3.0	3.0	2.5	2.5	5.0	4.5	5.0	10.5	10.5	10.5
9	3.5	3.0	3.0	2.5	2.0	2.5	6.0	5.0	5.5	11.5	8.5	9.5
10	3.5	3.0	3.0	2.5	2.5	2.5	6.0	5.5	5.5	10.5	8.0	10.0
11	3.0	3.0	3.0	3.0	2.5	2.5	6.0	5.5	5.5	11.0	10.0	10.5
12	3.5	3.0	3.5	3.0	2.5	3.0	6.0	5.5	6.0	11.0	10.0	10.5
13	3.5	3.5	3.5	3.0	2.5	2.5	8.0	6.0	6.5	11.0	10.5	11.0
14	3.5	3.5	3.5	2.5	2.5	2.5	8.0	6.5	7.5	11.0	11.0	11.0
15	3.5	3.5	3.5	3.0	2.5	3.0	8.0	8.0	8.0	11.5	11.0	11.0
16	3.5	3.5	3.5	3.0	3.0	3.0	8.0	7.5	7.5	11.5	11.0	11.0
17	3.5	3.5	3.5	3.0	3.0	3.0	7.5	7.0	7.0	11.5	11.0	11.5
18	3.5	3.5	3.5	3.0	3.0	3.0	7.5	7.0	7.5	11.5	11.0	11.0
19	3.5	3.5	3.5	3.5	3.0	3.0	7.5	7.0	7.5	11.5	10.5	11.0
20	3.5	3.5	3.5	4.0	3.0	3.5	7.5	7.0	7.0	12.0	11.0	11.5
21	3.5	3.5	3.5	3.5	3.5	3.5	7.5	7.0	7.5	12.0	11.5	12.0
22	4.0	3.5	3.5	3.5	3.5	3.5	8.0	7.5	8.0	13.0	11.5	12.0
23	4.0	3.5	3.5	3.5	3.5	3.5	8.5	7.5	8.0	12.0	11.5	11.5
24	4.0	4.0	4.0	3.5	3.5	3.5	8.5	7.5	8.0	13.5	12.0	12.5
25	4.0	4.0	4.0	3.5	3.5	3.5	7.5	7.5	7.5	13.5	11.5	12.5
26	4.0	3.5	3.5	4.0	3.5	3.5	8.5	7.5	8.0	13.5	12.0	13.0
27	3.5	3.5	3.5	4.0	3.5	4.0	9.5	8.5	9.0	14.0	13.5	13.5
28	3.5	3.5	3.5	4.0	3.5	4.0	9.5	8.5	9.0	14.0	13.5	14.0
29	3.5	3.5	3.5	3.5	3.5	3.5	9.5	8.5	9.0	14.0	10.0	13.0
30	---	---	---	3.5	3.5	3.5	10.0	8.5	9.5	13.5	10.0	11.5
31	---	---	---	4.0	3.5	3.5	---	---	---	10.5	10.0	10.0
MONTH	4.0	2.5	3.5	4.0	2.0	3.0	10.0	3.5	6.5	14.0	7.5	11.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	11.0	10.5	10.5	13.5	13.0	13.5	---	---	---	16.0	14.5	15.0
2	11.0	10.5	11.0	13.5	13.0	13.5	---	---	---	16.0	14.5	15.0
3	11.0	11.0	11.0	13.5	13.5	13.5	---	---	---	16.0	15.0	15.0
4	12.5	11.0	11.5	14.0	13.5	13.5	---	---	---	15.5	13.0	15.0
5	15.0	12.0	14.0	14.0	13.5	14.0	---	---	---	15.5	15.0	15.0
6	16.0	14.5	15.0	14.0	13.5	14.0	---	---	---	15.5	14.5	15.0
7	16.5	15.5	16.0	14.5	14.0	14.5	---	---	---	16.5	14.5	15.0
8	17.0	14.5	16.0	14.5	14.5	14.5	---	---	---	16.5	14.5	15.0
9	16.0	14.5	15.5	14.5	14.5	14.5	---	---	---	16.0	15.0	15.0
10	16.5	15.5	16.0	17.5	14.5	15.0	---	---	---	15.5	15.0	15.0
11	17.0	15.0	16.0	15.0	14.5	14.5	---	---	---	16.5	15.0	15.5
12	17.0	15.0	16.0	15.0	14.5	15.0	---	---	---	16.5	15.0	15.5
13	16.5	12.0	14.0	15.0	15.0	15.0	---	---	---	16.5	15.0	15.5
14	13.0	12.0	12.5	15.5	15.0	15.0	---	---	---	15.5	15.0	15.5
15	13.0	12.5	12.5	15.5	15.0	15.0	---	---	---	15.0	15.0	15.0
16	13.0	12.0	12.5	15.5	15.0	15.5	---	---	---	16.0	14.5	15.0
17	12.5	12.5	12.5	---	---	---	---	---	---	16.0	14.5	15.0
18	12.5	12.5	12.5	---	---	---	---	---	---	16.0	14.5	15.0
19	13.0	10.0	12.5	---	---	---	---	---	---	16.0	15.0	15.0
20	13.0	12.5	12.5	---	---	---	---	---	---	16.0	15.0	15.0
21	13.5	12.5	13.0	---	---	---	---	---	---	16.5	15.0	15.0
22	13.5	12.5	13.0	---	---	---	---	---	---	16.0	15.0	15.0
23	13.5	12.5	13.0	---	---	---	---	---	---	16.0	15.0	16.0
24	13.0	12.5	13.0	---	---	---	---	---	---	16.0	15.5	16.0
25	13.0	12.5	13.0	---	---	---	---	---	---	16.5	15.5	16.0
26	13.0	13.0	13.0	---	---	---	---	---	---	---	---	---
27	13.5	13.0	13.0	---	---	---	---	---	---	---	---	---
28	13.5	13.0	13.5	---	---	---	---	---	---	---	---	---
29	14.0	13.0	13.5	---	---	---	16.0	15.0	15.0	---	---	---
30	14.0	13.0	13.5	---	---	---	16.0	15.0	15.0	---	---	---
31	---	---	---	---	---	---	16.5	14.5	15.0	---	---	---
MONTH	17.0	10.0	13.5	17.5	13.0	14.5	16.5	14.5	15.0	16.5	13.0	15.5

01450500 AQUASHICOLA CREEK AT PALMERTON, PA.

LOCATION.--Lat 40°48'22", long 75°35'54", Carbon County, Hydrologic Unit 02040106, on right bank 1,200 (370 m) upstream from Sixth Street Bridge in Palmerton, and 1.2 mi (1.9 km) upstream from mouth.
DRAINAGE AREA.--76.7 mi^2 (198.7 km^2).
PERIOD OF RECORD.--October 1939 to current year.
REVISED RECORDS.--WSP 1051: 1940-45 (monthly net diversion), drainage area. WSP 2102: 1967 (monthly net diversion).
GAGE.--Water-stage recorder. Datum of gage is 389.08 ft (118.592 m) National Geodetic Vertical Datum of 1929.
REMARKS.--Records good. Regulation at low flow by mills above station. Occasional diversion from Pohopoco Creek into Aquashicola Creek above station. Figures of daily discharge do not include water diverted above station from Aquashicola Creek by the New Jersey Zinc Co. Several observations of water temperture were made during the year.
AVERAGE DISCHARGE.--45 years, 154 ft^3/s (4.361 m^3/s), 27.27 in/yr (693 mm/yr), adjusted for diversion.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,700 ft^3/s (331 m^3/s) July 10, 1945, gage height, 13.63 ft (4.154 m), from rating curve extended above 2,500 ft^3/s (71 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 2.6 ft^3/s (0.074 m^3/s) Sept. 12, 1957, from rating curve extended below 16 ft^3/s (0.45 m^3/s); minimum gage height, 2.44 ft (0.744 m) Sept. 16, 1964; minimum daily discharge, 9.1 ft^3/s (0.26 m^3/s) Sept. 15, 1964.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s/(28.3 m^3/s) and maximum (*):

Date	Time	DISCHARGE (ft^3/s)	DISCHARGE (m^3/s)	GAGE HEIGHT (ft)	GAGE HEIGHT (m)	Date	Time	DISCHARGE (ft^3/s)	DISCHARGE (m^3/s)	GAGE HEIGHT (ft)	GAGE HEIGHT (m)
Dec. 14	0030	3670	104	8.88	2.707	May 4	1315	1450	41.1	6.46	1.969
Apr. 5	2015	4350	123	9.45	2.880	May 29	1915	2750	77.9	7.99	2.435

Minimum daily discharge, 23 ft^3/s (0.65 m^3/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	67	356	173	59	171	223	165	696	177	100	56
2	30	63	287	162	80	159	275	151	506	181	102	48
3	28	62	251	155	96	151	327	161	402	157	111	46
4	26	58	288	150	276	142	404	1170	326	144	115	63
5	26	54	290	144	162	139	2610	779	270	177	139	53
6	26	51	313	141	123	134	2500	475	238	368	150	46
7	26	48	448	135	107	130	1250	362	215	527	136	42
8	24	45	414	125	92	125	756	367	193	430	123	40
9	26	43	336	111	87	121	537	340	178	319	115	39
10	26	45	290	105	85	117	406	298	163	266	107	38
11	23	81	248	99	122	114	330	272	152	256	106	36
12	45	76	405	92	142	106	293	256	140	258	100	36
13	70	62	2370	87	139	107	258	233	135	211	93	34
14	59	55	2590	82	160	110	236	225	133	186	88	34
15	47	74	1160	77	540	112	246	202	123	169	83	35
16	42	334	717	76	601	131	303	186	115	164	77	35
17	38	280	506	75	422	150	353	173	114	149	71	33
18	35	204	394	74	336	152	338	162	148	258	68	33
19	87	168	332	73	287	154	313	160	137	225	69	32
20	70	148	277	72	263	152	284	158	111	184	68	31
21	57	266	235	70	240	167	255	162	102	167	62	30
22	50	245	228	70	218	197	231	140	95	154	58	29
23	71	209	220	68	203	194	228	167	91	140	80	29
24	244	196	217	98	226	183	224	186	128	131	69	29
25	181	358	208	172	207	174	207	159	200	121	58	28
26	139	407	200	151	192	164	187	159	135	112	53	28
27	115	315	196	139	182	153	173	151	117	173	51	27
28	99	285	189	127	190	180	164	160	107	142	50	30
29	38	479	181	102	196	207	169	1610	102	120	49	32
30	79	471	175	80	---	192	163	1840	151	112	51	29
31	72	---	169	70	---	196	---	1070	---	106	80	---
TOTAL	1976	5249	14490	3355	6033	4686	14243	12097	5723	6284	2682	1103
MEAN	63.7	175	467	108	208	151	475	390	191	203	86.5	36.8
MAX	244	479	2590	173	601	207	2610	1840	696	527	150	63
MIN	23	43	169	68	59	107	163	140	91	106	49	27
†	-4.6	-5.1	-4.9	-5.0	-5.1	-4.4	-4.4	-4.6	-4.9	-4.9	-5.2	-5.4
MEAN‡	59.1	170	462	103	203	147	471	385	186	198	81.3	31.4
CFSM‡	.77	2.22	6.02	1.34	2.65	1.92	6.14	5.02	2.43	2.58	1.06	.41
IN‡	.89	2.51	6.82	1.52	3.00	2.17	6.95	5.68	2.74	2.92	1.20	.46

CAL YR 1983 TOTAL 77654 MEAN 213 MAX 3540 MIN 22 MEAN‡ 209 CFSM‡ 2.73 IN‡ 37.07
WTR YR 1984 TOTAL 77921 MEAN 213 MAX 2610 MIN 23 MEAN‡ 208 CFSM‡ 2.71 IN‡ 36.84

† Figures of net division, equivalent in cubic feet per second, include water diverted from Pohopoco Creek to Aquashicola Creek plus water diverted above station from Aquashicola Creek, furnished by New Jersey Zinc Company and Palmer Water Company.
‡ Adjusted for diversion.

01451000 LEHIGH RIVER AT WALNUTPORT, PA

LOCATION.--Lat 40°45'25", long 75°36'12", Northampton County, Hydrologic Unit 02040106, on left bank 0.3 mi (0.5 km) upstream from highway bridge at Walnutport, and 0.4 mi (0.6 km) upstream from Trout Creek.

DRAINAGE AREA.--889 mi² (2,303 km²).

PERIOD OF RECORD.--October 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 350.27 ft (106.762 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Flow regulated by Wild Creek Reservoir (station 01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Lake (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--38 years, 1,876 ft³/s (53.13 m³/s), 28.66 in/yr (728 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 77,800 ft³/s (2,200 m³/s) Aug. 19, 1955, gage height, 17.68 ft (5.389 m); minimum, 57 ft³/s (1.61 m³/s) July 27, 1965, gage height, 1.25 ft (0.381 m), result of upstream shutoff.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 20.6 ft (6.28 m) May 23, 1942, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,400 ft³/s (719 m³/s) Dec. 14, gage height, 9.16 ft (2.792 m); minimum daily, 253 ft³/s (7.16 m³/s) Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	295	444	3920	2270	1300	2770	2630	2660	14300	3510	1100	562
2	307	437	3220	1930	1300	2300	2600	2110	7800	4000	997	522
3	292	437	2500	1970	1480	2050	3050	2040	6990	4550	1060	509
4	285	433	2740	2290	2110	1900	3880	7460	6040	3830	987	574
5	282	397	2950	2070	1540	1790	15000	7690	3790	3530	1040	571
6	253	370	3250	1730	1300	1700	17500	5510	3280	3220	1130	477
7	266	361	4380	1600	1270	1650	12600	4110	2620	3990	1250	437
8	364	355	4220	1400	1250	1580	14400	4040	2340	5750	1110	414
9	363	354	3710	1330	1240	1460	13500	5800	2150	4270	1110	411
10	366	369	2710	1280	1220	1380	12200	4230	2020	2990	944	410
11	361	607	2480	1200	1450	1300	7870	3330	1720	2290	901	410
12	438	841	3760	1130	1630	1310	4910	2950	1410	3360	908	383
13	492	664	15500	1100	1790	1310	4410	2840	1440	3080	886	371
14	652	552	18600	1050	2930	1350	3670	3000	1370	2060	843	370
15	1030	745	13500	1020	8850	1490	3490	2980	1400	1930	802	635
16	774	2590	14000	980	9080	1470	3720	2530	1290	1960	781	604
17	611	2010	11900	950	11200	1600	4210	2340	1340	1710	776	399
18	426	1680	7940	910	9200	1550	4360	2100	1750	2770	821	348
19	614	860	6700	890	5190	1590	4100	1970	1880	2820	817	345
20	735	800	5360	900	4690	1840	3980	1990	1620	2480	853	342
21	686	2650	3660	910	4330	2400	3410	2360	737	1830	853	341
22	644	3000	4080	1080	4220	3530	3170	2580	1080	1700	787	335
23	732	3300	4130	1230	3190	3560	3040	2330	1140	1610	824	335
24	1470	1900	3190	1340	3920	2730	2850	2690	1670	1450	803	336
25	975	3950	3170	1780	3360	2610	2960	2570	2910	1310	772	335
26	862	3640	2770	2260	3110	2490	3010	2150	2060	1200	763	331
27	832	3130	2630	1940	3520	2320	2770	2100	1580	1680	744	332
28	769	2990	2030	1640	3400	2490	2360	2120	1460	1710	537	341
29	607	4340	3920	1350	3300	2850	2470	11900	1180	1520	439	358
30	489	4480	3330	1230	---	2740	2400	11500	2880	1450	468	371
31	455	---	2420	1270	---	2550	---	12700	---	1310	618	---
TOTAL	17727	48686	169570	44080	102370	63660	170520	126680	83247	80870	26744	12509
MEAN	572	1623	5470	1422	3530	2054	5684	4086	2775	2609	863	417
MAX	1470	4480	18600	2290	11200	3560	17500	12700	14300	5750	1250	635
MIN	253	354	2420	890	1220	1300	2360	1970	737	1200	439	331

CAL YR 1983 TOTAL 923863 MEAN 2531 MAX 28300 MIN 246
WTR YR 1984 TOTAL 946663 MEAN 2587 MAX 18600 MIN 253

01451500 LITTLE LEHIGH CREEK NEAR ALLENTOWN, PA

LOCATION.--Lat 40°34'56", long 75°29'00", Lehigh County, Hydrologic Unit 02040106, on right bank at downstream side of bridge on Lehigh Parkway in Allentown, 0.8 mi (1.3 km) upstream from Cedar Creek, and 2.9 mi (4.7 km) upstream from mouth.

DRAINAGE AREA.--80.8 mi² (209.3 km²).

PERIOD OF RECORD.--October 1945 to current year. Prior to October 1946, published as "at Allentown."

REVISED RECORDS.--WDR PA-73-1: 1946(M), 1951(P), 1955(M), 1956(M), 1958(M), 1962(M), 1963(M), 1965(M), 1969(M), 1971(M).

GAGE.--Water-stage recorder and, since September 1958, masonry control. Datum of gage is 253.41 ft (77.239 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Occasional regulation at low flow by fish hatchery above station. Several observation of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years, 99.9 ft³/s (2.829 m³/s), 16.79 in/yr (426 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft³/s (334 m³/s) June 22, 1972, gage height, 11.80 ft (3.597 m), from rating curve extended above 980 ft³/s (27.8 m³/s) on basis of slope-area measurement of peak flow; minimum, 17 ft³/s (0.48 m³/s) Feb. 4, 1965, result of upstream shutoff; minimum gage height, 1.39 ft (0.424 m) June 17, 18, 22, 1949.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft³/s (25.5 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 13	0745	3440	97.4	5.77	1.759	May 29	1745	3620	103	5.90	1.798
Apr. 5	1615	2040	57.8	4.71	1.436	June 25	0630	5170	146	7.06	2.152
May 4	0345	1040	29.5	3.97	1.210	July 7	1045	*6330	179	*7.92	2.414

Minimum discharge, 43 ft³/s (1.22 m³/s) Oct. 5, gage height, 2.20 ft (0.671 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	50	109	142	102	173	263	172	361	222	187	103
2	48	50	97	137	99	162	254	160	290	252	175	97
3	46	50	94	135	131	157	236	181	256	185	170	95
4	45	50	214	134	449	152	232	766	239	169	168	132
5	48	48	184	134	277	163	1320	366	217	196	165	148
6	50	48	132	136	158	192	757	249	207	512	168	110
7	46	46	143	132	136	172	458	219	200	4050	162	97
8	45	47	117	125	119	155	350	229	191	540	154	95
9	45	47	107	119	117	151	302	277	183	330	152	93
10	45	53	102	119	121	146	277	231	176	275	146	91
11	45	78	96	116	186	147	257	206	169	257	140	91
12	56	70	345	114	223	140	242	195	164	264	137	90
13	66	58	2340	112	173	142	232	188	161	249	137	89
14	70	53	1640	110	175	163	235	187	173	222	135	87
15	53	69	511	108	668	164	243	179	161	206	130	86
16	48	249	322	108	675	176	295	180	150	202	127	86
17	46	107	245	107	345	191	285	174	146	212	123	85
18	46	73	208	106	261	182	240	171	185	214	122	82
19	79	65	188	104	222	183	232	176	215	219	119	76
20	61	62	166	102	203	174	224	191	181	219	118	73
21	50	193	151	101	186	193	206	291	162	215	116	71
22	47	97	298	102	172	204	193	187	155	214	114	70
23	58	74	299	102	166	174	203	188	147	210	117	69
24	227	71	193	108	357	162	216	217	149	205	122	71
25	96	220	153	137	263	158	198	174	1610	198	117	71
26	65	152	148	140	210	157	182	174	366	194	112	70
27	57	108	145	137	186	151	175	205	214	213	107	69
28	54	121	282	133	199	176	170	170	183	242	104	71
29	52	248	377	115	210	234	203	1310	171	231	102	77
30	50	141	180	111	---	218	179	1630	169	216	99	75
31	50	---	147	109	---	222	---	528	---	203	102	---
TOTAL	1839	2790	9733	3695	6789	5334	8859	9771	7351	11336	4147	2620
MEAN	59.3	93.0	314	119	234	172	295	315	245	366	134	87.3
MAX	227	249	2340	142	675	234	1320	1630	1610	4050	187	148
MIN	45	47	94	101	99	140	170	160	146	169	99	69
CFSM	.73	1.15	3.89	1.47	2.90	2.13	3.65	3.90	3.03	4.53	1.66	1.08
IN.	.85	1.28	4.48	1.70	3.13	2.46	4.08	4.50	3.38	5.22	1.91	1.21

CAL YR 1983 TOTAL 47942 MEAN 131 MAX 2340 MIN 42 CFSM 1.62 IN. 22.07
WTR YR 1984 TOTAL 74264 MEAN 203 MAX 4050 MIN 45 CFSM 2.51 IN. 34.19

01451800 JORDAN CREEK NEAR SCHNECKSVILLE, PA

LOCATION.--Lat 40°39'42", long 75°37'38", Lehigh County, Hydrologic Unit 02040106, on left bank 54 ft (16 m) downstream from wooden covered bridge at Trexler-Lehigh County Game Preserve, 1.0 mi (1.6 km) downstream from Mill Creek, and 1.1 mi (1.8 km) southwest of Schnecksville.

DRAINAGE AREA.--53.0 mi^2 (137.3 km^2).

PERIOD OF RECORD.--February 1966 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 400 ft (122 m), from topographic map. Prior to Oct. 2 1973, nonrecording gage at bridge 54 ft (16.5 m) upstream at same datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years, 95.4 ft^3/s (2.702 m^3/s), 24.45 in/yr (621 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,100 ft^3/s (201 m^3/s) June 22, 1972, gage height, 12.32 ft (3.755 m), from floodmark, from rating curve extended above 680 ft^3/s (19.3 m^3/s) on basis of contracted-opening measurement of peak flow; minimum observed, 0.4 ft^3/s (0.011 m^3/s) July 26, 1966; minimum gage height observed, 1.74 ft (0.530 m) July 19, 26, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 900 ft^3/s (25.5 m^3/s) revised and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 16	0530	917	26.0	5.22	1.591
Dec. 13	0130	*2930	83.0	8.20	2.499
Dec. 28	2100	1290	36.5	5.88	1.792
Feb. 4	0245	951	26.9	5.28	1.609
Feb. 15	0715	1410	39.9	6.07	1.850
Apr. 5	1315	1640	46.4	6.43	1.960
May 4	0530	1370	38.8	6.00	1.829
May 29	1715	2760	78.2	7.99	2.435
July 6	0045	1030	29.2	5.42	1.652

Minimum discharge, 4.5 ft^3/s (0.13 m^3/s) Sept. 27, gage height, 2.53 ft (0.771 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	39	273	86	26	103	308	76	386	132	38	15
2	8.3	37	197	79	32	100	341	63	251	92	35	9.6
3	8.1	36	162	73	83	86	305	78	188	74	34	9.3
4	7.2	34	251	57	464	80	330	1000	142	63	31	13
5	6.8	31	243	62	141	81	1360	513	111	134	44	11
6	6.4	29	286	64	83	93	1180	303	94	415	41	9.0
7	6.1	28	402	57	58	84	601	211	83	599	30	8.3
8	5.7	26	320	53	46	71	349	272	72	368	31	8.1
9	5.6	24	236	47	61	64	238	258	62	230	25	7.8
10	5.3	30	182	44	63	60	181	218	53	171	26	7.8
11	5.5	91	140	40	232	56	145	181	48	171	46	8.1
12	17	83	622	37	198	52	119	155	43	130	39	7.6
13	28	61	2420	34	135	50	102	123	40	94	48	6.8
14	20	57	1920	33	208	55	92	112	46	78	29	7.1
15	13	104	779	31	995	68	118	94	35	67	23	7.7
16	9.3	746	425	30	611	98	159	86	30	84	20	7.9
17	8.7	409	273	29	363	128	143	78	36	68	18	7.0
18	8.6	236	199	28	266	129	133	71	83	128	16	6.5
19	37	167	159	27	207	134	124	72	62	89	16	5.9
20	23	129	139	26	178	128	112	97	40	68	18	5.7
21	15	261	124	26	147	173	98	142	33	63	14	5.2
22	13	182	122	25	124	203	88	91	30	63	13	5.0
23	38	158	123	25	109	185	101	142	28	51	32	4.9
24	321	154	123	25	198	152	99	145	98	45	29	5.2
25	174	435	113	144	169	131	87	114	203	39	16	5.4
26	114	428	99	180	150	112	76	108	104	33	12	5.1
27	84	293	93	190	126	95	69	97	83	125	11	4.8
28	66	272	318	139	139	137	64	96	67	83	10	7.8
29	55	505	296	77	138	160	84	1500	60	60	11	8.5
30	46	406	124	55	---	148	72	1350	107	49	12	7.0
31	42	---	90	43	---	200	---	663	---	43	20	---
TOTAL	1205.6	5491	11253	1866	5750	3416	7278	8509	2718	3909	788	228.1
MEAN	38.9	183	363	60.2	198	110	243	274	90.6	126	25.4	7.60
MAX	321	746	2420	190	995	203	1360	1500	386	599	48	15
MIN	5.3	24	90	25	26	50	64	63	28	33	10	4.8
CFSM	.73	3.45	6.85	1.14	3.74	2.08	4.58	5.17	1.71	2.38	.48	.14
IN.	.85	3.85	7.90	1.31	4.04	2.40	5.11	5.97	1.91	2.74	.55	.16

CAL YR 1983 TOTAL 50850.7 MEAN 139 MAX 2420 MIN 4.9 CFSM 2.62 IN. 35.69
WTR YR 1984 TOTAL 52411.7 MEAN 143 MAX 2420 MIN 4.8 CFSM 2.70 IN. 36.79

01452000 JORDAN CREEK AT ALLENTOWN, PA

LOCATION.--Lat 40°37'23", long 75°28'58", Lehigh County, Hydrologic Unit 02040106, on right bank 200 ft (60 m) upstream from bridge on State Highway 145, 0.5 mi (0.8 km) northwest of city limits of Allentown, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--75.8 mi^2 (196.3 km^2).

PERIOD OF RECORD.--October 1944 to current year.

REVISED RECORDS.--WDR PA-76-1: 1970(M), 1971.

GAGE.--Water-stage recorder and rubble masonry control, crest raised 1 ft (0.3 m) in August 1958 and further modified by filling in square notches on sides and notching center of dam at 17:1 slope in August 1974. Datum of gage is 259.82 ft (79.193 m) Pennsylvania Department of Transportation datum.

REMARKS.--Records fair. Some regulation at low flow by mills above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years, 114 ft^3/s (3.228 m^3/s), 20.37 in/yr (517 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft^3/s (459 m^3/s) June 23, 1972, gage height, 11.61 ft (3.539 m), from floodmark, from rating curve extended above 6,100 ft^3/s (173 m^3/s) on basis of slope-area measurement of peak flow; no flow on many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 23, 1942, reached a stage of approximately 7.1 ft (2.16 m), from floodmarks 650 ft (200 m) downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft^3/s (36.8 m^3/s) and maximum (*):

Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)
Dec. 13	0815	*4350	123	6.76	2.060
Feb. 15	1145	2000	56.6	5.50	1.676
Apr. 5	1915	2520	71.4	5.83	1.777
May 4	1030	2000	56.6	5.50	1.676
May 29	2330	3890	110	6.54	1.993

Minimum discharge, 6.4 ft^3/s (0.18 m^3/s) Oct. 5, 6, 7, gage height, 2.19 ft (0.668 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	41	380	112	46	148	418	119	619	171	67	28
2	7.4	38	295	108	39	136	477	99	401	146	63	22
3	7.2	36	222	105	51	125	432	108	288	104	60	20
4	6.9	37	365	103	474	112	400	1380	224	88	57	27
5	8.7	33	340	99	331	118	1820	847	174	97	66	23
6	8.9	30	355	112	150	132	1930	474	147	558	73	20
7	20	28	580	95	95	126	971	320	131	927	56	19
8	26	26	450	72	63	102	547	350	113	544	57	17
9	26	24	330	66	61	89	360	375	99	333	49	17
10	16	28	230	75	63	84	270	311	86	240	50	17
11	7.3	70	190	61	195	90	217	262	76	227	63	16
12	10	118	353	43	321	75	183	225	69	197	64	16
13	11	72	3370	42	222	69	158	187	66	141	72	16
14	16	63	3150	41	224	99	144	169	71	121	52	15
15	11	73	1130	40	1350	93	168	143	62	103	44	15
16	9.2	1070	620	39	959	129	218	127	54	140	40	14
17	7.5	600	398	38	530	173	215	111	56	114	35	14
18	8.2	330	288	37	347	174	203	100	113	170	34	13
19	19	232	234	36	264	182	183	100	101	141	31	13
20	35	178	179	35	225	178	169	111	69	104	31	12
21	17	370	129	35	195	201	149	230	55	98	31	12
22	12	250	315	30	162	281	132	140	51	96	28	11
23	20	218	352	29	134	253	144	143	47	81	44	11
24	311	218	235	37	240	211	149	237	68	75	46	11
25	214	620	119	161	206	184	134	167	312	67	30	11
26	145	620	138	221	195	161	117	154	141	60	27	12
27	107	420	144	230	165	139	104	152	112	164	24	12
28	82	368	186	220	162	168	98	140	92	120	23	15
29	67	710	549	100	188	231	120	1520	86	88	24	13
30	54	500	171	78	---	209	105	2440	108	78	28	17
31	46	---	121	69	---	236	---	1080	---	72	30	---
TOTAL	1343.6	7421	15918	2569	7657	4708	10735	12321	4091	5665	1399	479
MEAN	43.3	247	513	82.9	264	152	358	397	136	183	45.1	16.0
MAX	311	1070	3370	230	1350	281	1930	2440	619	927	73	28
MIN	6.9	24	119	29	39	69	98	99	47	60	23	11
CFSM	.57	3.26	6.77	1.09	3.48	2.01	4.72	5.24	1.79	2.41	.59	.21
IN.	.66	3.64	7.81	1.26	3.76	2.31	5.27	6.05	2.01	2.78	.69	.24

CAL YR 1983 TOTAL 68001.7 MEAN 186 MAX 3420 MIN 6.9 CFSM 2.45 IN. 33.37
WTR YR 1984 TOTAL 74306.6 MEAN 203 MAX 3370 MIN 6.9 CFSM 2.68 IN. 36.47

01452500 MONOCACY CREEK AT BETHLEHEM, PA

LOCATION.--Lat 40°38'28", long 75°22,47", Northampton County, Hydrologic Unit 02040106, on right bank 40 ft (12 m) downstream from highway bridge at entrance to Monocacy Park at Bethlehem, and 2.1 mi (3.4 km) upstream from mouth.

DRAINAGE AREA.--44.5 mi^2 (115.3 km^2).

PERIOD OF RECORD.--October 1948 to current year.

GAGE.--Water-stage recorder. Concrete control since July 17, 1969. Datum of gage is 247.24 ft (75.359 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to May 15, 1962, nonrecording gage at site 40 ft (12 m) upstream at same datum.

REMARKS.--Records fair. Some regulation at low flow by mill above station since April 1954. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 53.2 ft^3/s (1.507 m^3/s), 16.22 in/yr (412 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,490 ft^3/s (98.8 m^3/s) Jan. 25, 1979, gage height, 8.19 ft (2.496 m); minimum, 3.0 ft^3/s (0.085 m^3/s) Jan. 9, 1966, gage height, 1.67 ft (0.509 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 10, 1945, reached a stage of 9.74 ft (2.969 m), from floodmarks, discharge, 5,200 ft^3/s (147 m^3/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 300 ft^3/s (8.50 m^3/s) and maximum (*):

		Discharge		Gage Height				Discharge		Gage Height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Dec. 13	---	554	15.7	4.03	1.228	May 30	---	*1310	37.1	*5.32	1.622
Feb. 4	2015	413	11.7	3.71	1.131	July 7	0900	877	24.8	4.63	1.411
Apr. 6	---	994	28.2	4.83	1.472	Aug. 9	2245	366	10.4	3.61	1.100
May 4	---	430	12.2	unknown							

Minimum daily discharge, 22 ft^3/s (0.62 m^3/s) Nov. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	24	53	76	48	84	103	81	250	123	81	67
2	28	24	45	70	47	77	118	78	200	107	78	68
3	25	24	43	68	59	69	130	81	170	98	79	65
4	25	24	55	62	228	65	170	251	150	110	79	71
5	26	23	70	58	111	67	350	200	137	122	89	67
6	25	24	70	54	85	69	370	145	135	228	83	65
7	26	24	100	51	72	67	280	110	131	590	81	63
8	26	24	80	48	59	60	220	112	123	282	78	65
9	26	24	62	46	57	59	170	137	116	203	115	63
10	26	24	50	43	54	58	152	112	111	174	129	62
11	26	27	44	42	74	59	135	102	108	163	130	66
12	26	32	150	41	92	54	124	96	104	149	120	65
13	27	28	370	40	80	56	113	93	101	127	108	64
14	28	22	270	39	77	58	104	90	99	120	103	64
15	26	37	200	38	159	60	105	86	95	117	96	64
16	25	66	160	37	139	69	151	85	91	128	88	64
17	28	34	137	36	120	75	136	84	92	110	84	63
18	30	39	112	36	119	75	130	83	113	143	83	61
19	33	35	97	35	97	74	124	84	105	116	83	58
20	27	33	88	35	94	73	121	100	95	103	83	58
21	25	55	115	35	88	73	105	140	91	105	78	60
22	25	41	165	35	87	74	101	100	87	101	77	57
23	31	42	130	35	86	71	102	92	86	94	89	57
24	59	38	98	48	104	66	103	108	113	93	83	57
25	37	94	85	63	94	68	98	96	144	90	77	57
26	32	100	80	79	87	66	91	88	98	87	75	57
27	28	80	110	87	80	62	87	86	91	135	71	55
28	28	78	195	81	91	67	84	86	89	99	73	55
29	26	110	150	65	92	80	86	160	101	90	73	55
30	25	70	95	58	---	80	82	450	93	87	80	55
31	25	---	80	54	---	86	---	370	---	83	88	---
TOTAL	878	1300	3559	1595	2680	2123	4245	3986	3519	4377	2734	1848
MEAN	28.3	43.3	115	51.5	92.4	68.5	142	129	117	141	88.2	61.6
MAX	59	110	370	87	228	86	370	450	250	590	130	71
MIN	25	22	43	35	47	54	82	78	86	83	71	55
CFSM	.64	.97	2.58	1.16	2.08	1.54	3.19	2.90	2.63	3.17	1.98	1.38
IN.	.73	1.09	2.98	1.33	2.24	1.77	3.55	3.33	2.94	3.66	2.29	1.54

CAL YR 1983 TOTAL 25380 MEAN 69.5 MAX 446 MIN 22 CFSM 1.56 IN. 21.22
WTR YR 1984 TOTAL 32844 MEAN 89.7 MAX 590 MIN 22 CFSM 2.02 IN. 27.46

01453000 LEHIGH RIVER AT BETHLEHEM, PA

LOCATION.--Lat 40°36'55", long 75°22'45", Lehigh County, Hydrologic Unit 02040106, on left bank 110 ft (34 m) upstream from New Street Bridge at Bethlehem, and 1,800 ft (549 m) upstream from Monocacy Creek. Records include flow of Monocacy Creek.

DRAINAGE AREA.--1,279 mi² (3,313 km²) includes that of Monocacy Creek. At site used prior to Oct. 1, 1928, 1,229 mi² (3,183 km²).

PERIOD OF RECORD.--September 1902 to February 1905, April 1909 to current year. Monthly discharge only for some periods, published in WSP 1302. Published as "at South Bethlehem" prior to October 1913.

REVISED RECORDS.--WSP 261: 1903-5, WSP 321: 1910-11. WSP 1051: Drainage area. WSP 1141: 1929-34(M). WSP 1302: 1914(M), 1916(M), 1918, 1921, 1927-28. WSP 1432: 1903, 1919(M), 1920-21, 1929, 1933.

GAGE.--Water-stage recorder. Datum of gage is 210.94 ft (64.295 m) National Geodetic Vertical Datum of 1929. Prior to October 1928, nonrecording gage at New Street Bridge 120 ft (37 m) downstream at same datum. Oct. 1, 1928, to Sept. 30, 1962, water-stage recorder at site 4,250 ft (1,295 m) downstream at datum 2.49 ft (0.759 m) lower. Oct. 1, 1963, to Dec. 14, 1975, water-stage recorder at site 40 ft (12 m) downstream at same datum.

REMARKS.--Records good. Flow regulated by Wild Creek Reservoir (station 01449700) since January 1941, Penn Forest Reservoir (station 01449400) since October 1958, Francis E. Walter Reservoir (station 01447780) since February 1961, and Beltzville Lake (station 01449790) since February 1971. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--77 years (water years 1902-04, 1909-84), 2,349 ft³/s (66.52 m³/s), 24.94 in/yr (633 mm/yr), adjusted for diversion 1902-04, 1909-42 and, for recirculated water, October 1, 1959 to September 30, 1962.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 92,000 ft³/s (2,610 m³/s) May 23, 1942, gage height, about 25.9 ft (7.89 m), from floodmark, present site and datum, from rating curve extended above 48,000 ft³/s (1,360 m³/s); minimum, 125 ft³/s (3.54 m³/s) June 28, 1965, gage height, 0.94 ft (0.287 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 28, 1902, reached a stage of 24.9 ft (7.59 m), from floodmark, present site and datum, discharge, about 88,000 ft³/s (2,490 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33,700 ft³/s (954 m³/s), Dec. 14, gage height, 13.03 ft (3.972 m); minimum, 380 ft³/s (10.8 m³/s) Oct. 7, gage height, 1.10 ft (0.335 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	513	715	4670	2960	1390	3540	3940	3390	16700	4370	1550	1060
2	487	688	3950	2870	1290	3120	3940	2860	10000	4600	1430	970
3	485	685	3190	2700	1300	2790	4100	2760	8180	5000	1430	967
4	444	691	3610	2670	3490	2620	4690	10100	7270	4430	1420	1140
5	496	673	3950	2540	2850	2690	17900	10700	4900	4800	1550	1110
6	451	618	3890	2280	1750	2890	23800	7350	4280	5790	1580	952
7	399	605	5210	2030	2070	2650	14900	5490	3550	9500	1680	876
8	496	578	5010	1690	1830	2400	16000	5310	3240	7320	1520	832
9	549	575	4440	1580	1460	2270	14600	5560	2960	5850	1510	815
10	551	679	3530	1620	1360	2180	13600	5590	2800	4280	1440	819
11	545	857	3080	1620	1800	2250	10100	4530	2560	4190	1390	823
12	680	1230	3930	1390	2560	2030	5930	4020	2120	4130	1380	800
13	804	979	23600	1390	2460	1770	5530	3760	2040	4270	1390	767
14	835	874	27600	1430	3050	1870	4680	4030	2020	3040	1320	751
15	1010	992	16200	1420	10700	2080	4420	3880	1930	2780	1290	829
16	1100	3770	15600	1290	10500	2230	5010	3400	1660	3040	1270	1160
17	799	3150	12900	1360	12400	2480	5140	3150	1820	2650	1260	841
18	728	2390	9400	1370	10200	2430	5400	2870	2620	3600	1270	734
19	873	1830	7450	1370	6780	2450	5000	2750	2690	3910	1270	707
20	993	1420	6160	1250	5500	2610	4860	2860	2360	3380	1280	714
21	884	3130	4520	1170	5030	2890	4270	3510	1960	2800	1290	699
22	835	3450	5240	1090	4930	4170	3960	3440	1510	2530	1260	683
23	969	3010	5670	1160	4080	4350	3900	3260	1440	2370	1340	680
24	2550	2370	4170	1290	4730	3610	3730	3870	1850	2210	1320	693
25	1760	4230	3430	2130	4500	3310	3660	3460	5370	1880	1220	686
26	1240	4800	3200	2760	3960	3190	3760	3120	3240	1560	1230	679
27	1170	3970	3400	2580	3880	2990	3480	3010	2450	2850	1200	677
28	1070	3690	4500	2120	4320	3160	3140	2950	2190	2730	1100	757
29	969	5510	7200	1410	4270	3860	3290	16000	1780	2310	892	721
30	777	5510	4820	1340	---	3730	3100	19900	2860	2140	973	736
31	736	---	3210	1420	---	3520	---	15300	---	1920	1120	---
TOTAL	26198	63669	216730	55300	124460	88130	209830	172180	110350	115910	41175	24678
MEAN	845	2122	6991	1784	4292	2843	6994	5554	3678	3739	1328	823
MAX	2501	5510	27600	2960	12400	4350	23800	19900	16700	9500	1680	1160
MIN	399	575	3080	1090	1290	1770	3100	2750	1440	1560	892	677

CAL YR 1983 TOTAL 1136798 MEAN 3115 MAX 36100 MIN 399
WTR YR 1983 TOTAL 1248610 MEAN 3412 MAX 27600 MIN 399

01454700 LEHIGH RIVER AT GLENDON, PA

LOCATION.--Lat 40°40'09", long 75°14'12", Northampton County, Hydrologic Unit 02040106, on right bank 140 ft (43 m) upstream from highway bridge in Hugh Moore Parkway at Glendon, 1.9 mi (3.1 km) upstream from mouth, and 2.0 mi (3.2 km) southwest of Easton.

DRAINAGE AREA.--1,359 mi^2 (3,520 km^2).

PERIOD OF RECORD.--October 1966 to current year.

REVISED RECORDS.--WDR PA-72-1: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 164.30 ft (50.079 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except those for periods no gage-height record, Mar. 18 to Apr. 4, June 20 to July 11, and Aug. 2 to Sept. 6 which are fair. Flow regulated by Francis E. Walter Reservoir (station 01447780), Penn Forest Reservoir (station 01449400), and Wild Creek Reservoir (station 01449700) and since February 1971, Beltzville Lake (station 01449790) about 60 mi (97 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years, 2,972 ft^3/s (84.17 m^3/s), 29.69 in/yr (754 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60,600 ft^3/s (1,720 m^3/s) June 23, 1972, gage height, 24.86 ft (7.577 m), from rating curve extended above 36,000 ft^3/s (1,020 m^3/s); minimum daily, 330 ft^3/s (9.35 m^3/s) Jan. 31, Feb. 1, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 33,500 ft^3/s (949 m^3/s) Dec. 14, gage height, 18.68 ft (5.694 m); minimum, 485 ft^3/s (13.7 m^3/s) Oct. 7, gage height, 6.57 ft (2.003 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	646	819	5830	3050	1730	4170	4770	3900	17700	5320	2160	1190
2	605	791	4920	2970	1510	3660	4760	3400	11700	5510	1920	1090
3	585	767	3980	2850	1540	3250	4890	3200	9540	5850	1860	1060
4	547	773	4650	3100	4300	3010	5490	12000	8630	5290	1870	1390
5	592	775	5050	2990	3620	3090	19200	12500	6070	5350	2110	1240
6	594	748	4820	2700	2310	3380	27600	8400	5180	7640	2170	1070
7	505	686	6430	2430	2410	3100	16300	6400	4310	13000	2230	974
8	558	674	6220	2220	2290	2770	17300	6200	3880	8970	2180	923
9	632	643	5520	2100	1880	2610	16000	6360	3510	7390	2000	902
10	629	639	4390	2160	1720	2480	15000	6580	3290	5450	2070	905
11	626	751	3790	2160	2140	2560	11300	5430	3030	5180	1830	911
12	741	1300	4540	1800	3060	2410	7070	4780	2570	5190	1800	895
13	929	1100	23700	1710	2860	2270	6520	4460	2450	5210	1850	861
14	938	940	28600	1800	3360	2350	5560	4710	2500	3790	1660	832
15	997	1100	17500	1820	11600	2460	5210	4590	2380	3370	1580	859
16	1430	4300	16700	1520	12200	2630	6110	3990	2190	3750	1530	1250
17	980	3800	14200	1620	13800	2930	6110	3660	2290	3260	1490	931
18	906	3000	10600	1680	11600	2860	6340	3320	3110	4210	1490	813
19	997	2400	8430	1680	8170	2850	5930	3160	3180	4900	1490	777
20	1090	1800	7090	1420	6500	3000	5750	3360	2780	4080	1520	784
21	1050	3600	5220	1280	5940	3270	5130	4320	2400	3430	1500	768
22	948	4200	6050	1200	5780	4810	4700	3980	2060	3020	1450	745
23	904	3710	6680	1260	4860	5090	4500	3770	1890	2800	1680	741
24	2150	2940	4850	1460	5690	4290	4300	4590	2420	2640	1600	758
25	3040	5260	3520	2420	5460	3860	4200	4030	7160	2390	1390	750
26	1770	6040	3500	3160	4700	3720	4400	3680	3960	2160	1380	743
27	1430	4950	3650	3060	4490	3450	4100	3600	2930	3670	1340	726
28	1350	4610	4630	2660	5160	3660	3700	3430	2590	3340	1260	832
29	1220	6910	7620	1830	5120	4710	3800	15800	2370	2760	1040	782
30	1070	6850	5160	1640	---	4500	3700	27500	3230	2530	1100	785
31	857	---	3400	1760	---	4210	---	19300	---	2410	1310	---
TOTAL	31316	76876	241500	65510	145800	103410	239740	204420	131300	143860	51860	27287
MEAN	1010	2563	7790	2113	5028	3336	7991	6594	4377	4641	1673	910
MAX	3040	6910	28600	3160	13800	5090	27600	27500	17700	13000	2230	1390
MIN	505	639	3400	1200	1510	2270	3700	3180	1890	2160	1040	726

CAL YR 1983 TOTAL 1331646 MEAN 3648 MAX 35000 MIN 505
WTR YR 1984 TOTAL 1462879 MEAN 3997 MAX 28600 MIN 505

01454720 LEHIGH RIVER AT EASTON, PA

LOCATION.--Lat 40°41'12", long 75°12'32", Northampton County, Hydrologic Unit 02040106, at Third Street Bridge, Easton, U.S. Highway 611.

DRAINAGE AREA.--1,364 mi² (3,533 km²).

PERIOD OF RECORD.--October 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: October 1972 to September 1974, October 1975 to current year.
WATER TEMPERATURES: October 1961 to current year.
DISSOLVED OXYGEN: June 1966 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1961.

REMARKS.--Station not operated Oct. 1 to Mar. 6. Other interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 581 micromhos Aug. 19, 1963; minimum, 70 micromhos Nov. 14, 1970.
pH: Maximum, 8.4 Aug. 8, 1980; minimum, 6.0 Mar. 16, 1978.
WATER TEMPERATURES: Maximum, 30.5°C July 29, 1970, and July 21, 1980; minimum, 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 15.5 mg/L Jan. 11, 1978; minimum, 0.0 mg/L Aug. 4, 1966.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	221	209	214	207	190	199
2				---	---	---	211	205	209	207	190	196
3				---	---	---	212	205	209	215	203	211
4				---	---	---	205	188	195	207	151	176
5				---	---	---	187	136	161	153	138	143
6				---	---	---	140	117	128	159	143	152
7				225	215	220	140	134	137	180	159	169
8				229	223	226	135	105	111	186	180	183
9				240	226	230	106	100	103	185	178	182
10				252	232	243	104	100	102	184	165	173
11				245	225	236	126	104	116	193	176	182
12				---	---	---	171	125	152	199	192	195
13				---	---	---	171	157	164	200	197	199
14				---	---	---	179	167	173	200	190	196
15				---	---	---	189	179	185	191	183	186
16				---	---	---	189	173	181	206	191	197
17				267	247	259	187	174	179	212	205	209
18				247	237	243	178	163	168	223	211	216
19				243	233	238	173	168	171	227	223	225
20				238	226	234	173	166	169	231	214	225
21				227	216	222	178	168	172	221	213	216
22				221	178	198	179	175	178	221	202	212
23				183	169	175	187	179	181	212	201	205
24				183	169	173	198	187	191	214	199	206
25				185	181	183	201	193	197	208	196	202
26				185	179	183	201	185	192	205	197	200
27				193	185	188	198	188	193	214	206	212
28				202	191	194	201	191	195	215	207	212
29				219	194	203	207	197	203	211	126	178
30				239	218	227	202	194	198	156	122	139
31				224	215	220	---	---	---	157	139	148
MONTH				267	169	217	221	100	171	231	122	192

01454720 LEHIGH RIVER AT EASTON, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	142	113	123	235	165	180	281	263	272	371	355	362
2	148	113	139	177	157	164	298	281	291	368	359	363
3	147	141	144	168	147	156	311	298	304	369	353	361
4	146	140	143	159	150	153	312	306	308	358	341	351
5	182	147	165	162	155	160	308	296	304	340	324	331
6	192	183	188	181	155	172	296	279	284	350	340	344
7	214	192	201	187	147	168	292	280	285	364	350	357
8	223	214	217	203	164	185	284	266	274	385	366	378
9	231	223	227	184	162	168	298	276	286	398	386	391
10	235	228	231	209	135	196	298	277	287	404	386	397
11	233	227	230	219	207	213	318	286	305	391	381	387
12	264	233	248	209	201	205	323	316	318	404	386	397
13	283	264	277	202	177	189	318	300	309	410	400	404
14	282	273	277	228	189	206	324	300	311	420	405	413
15	281	278	281	239	229	235	333	324	328	432	415	424
16	281	276	278	241	227	236	337	327	332	430	393	417
17	---	---	---	244	235	238	346	332	339	390	328	349
18	---	---	---	255	220	244	346	335	340	354	334	344
19	---	---	---	218	185	196	346	325	336	390	355	377
20	242	233	236	203	195	199	325	315	319	420	369	407
21	254	239	248	226	201	212	320	309	315	425	412	418
22	276	253	263	246	227	240	318	312	315	433	416	425
23	298	278	289	250	244	246	325	304	317	437	422	420
24	298	263	288	260	249	255	312	302	308	435	421	429
25	267	161	191	279	259	272	326	311	316	420	409	416
26	220	179	202	288	275	283	337	326	333	430	407	418
27	246	220	233	289	226	259	333	315	323	435	419	428
28	263	246	257	242	227	232	327	314	319	433	419	426
29	269	259	264	246	231	239	346	328	332	433	417	427
30	287	244	276	252	246	248	385	347	369	418	410	414
31	---	---	---	263	251	257	391	372	381	---	---	---
MONTH	298	113	227	289	147	213	391	263	315	437	324	393

PH (UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1				---	---	---	7.3	7.3	7.3	7.0	6.9	7.0
2				---	---	---	7.3	7.2	7.3	7.1	7.0	7.0
3				---	---	---	7.3	7.0	7.2	7.1	7.0	7.0
4				---	---	---	7.2	7.1	7.1	7.0	7.0	7.1
5				---	---	---	7.2	7.1	7.1	7.1	7.0	7.1
6				---	---	---	7.1	6.7	6.9	7.1	7.1	7.1
7				---	---	---	6.9	6.9	6.9	7.2	7.1	7.1
8				---	---	---	6.9	6.8	6.8	7.2	7.0	7.1
9				7.7	7.4	7.6	6.8	6.8	6.8	7.1	6.9	7.1
10				7.7	7.6	7.7	7.2	6.1	6.8	7.2	7.1	7.1
11				7.7	7.6	7.6	6.9	6.8	6.9	7.1	6.9	7.1
12				---	---	---	7.1	6.9	7.0	7.1	7.1	7.1
13				---	---	---	7.1	7.0	7.1	7.1	7.1	7.1
14				---	---	---	7.2	7.1	7.1	7.1	7.1	7.1
15				---	---	---	7.2	7.2	7.2	7.1	6.8	7.0
16				---	---	---	7.2	7.2	7.2	7.1	7.0	7.0
17				7.5	7.4	7.5	7.2	6.9	7.1	7.1	7.1	7.1
18				7.5	7.5	7.5	7.1	7.1	7.1	7.1	7.0	7.1
19				7.6	7.5	7.5	7.1	6.8	7.0	7.2	7.1	7.1
20				7.5	7.4	7.5	7.1	7.1	7.1	7.1	7.1	7.2
21				7.4	7.3	7.4	7.2	7.1	7.1	7.1	7.0	7.1
22				7.4	7.2	7.3	7.2	7.2	7.2	7.0	7.0	7.0
23				7.3	6.9	7.2	7.2	7.2	7.2	7.0	6.9	6.9
24				7.3	7.2	7.3	7.2	7.0	7.2	7.0	6.8	6.9
25				7.3	7.3	7.3	7.2	7.0	7.2	7.0	6.6	6.8
26				7.3	7.3	7.3	7.0	6.9	7.0	6.9	6.8	6.8
27				7.3	7.3	7.3	7.0	6.8	6.9	6.9	6.8	6.8
28				7.3	7.2	7.2	7.0	7.0	7.0	6.8	6.8	6.8
29				7.4	7.3	7.4	7.1	6.8	7.0	7.1	6.8	6.9
30				7.4	7.1	7.3	7.0	7.0	7.0	7.0	6.7	6.8
31				7.3	7.3	7.3	---	---	---	7.0	6.7	6.8
MONTH				7.7	6.9	7.4	7.3	6.1	7.1	7.2	6.6	7.0

01454720 LEHIGH RIVER AT EASTON, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.7	6.6	6.7	6.9	6.7	6.8	7.4	7.3	7.4	7.8	7.5	7.6
2	6.9	6.7	6.8	6.9	6.8	6.9	7.6	7.3	7.4	7.9	7.6	7.7
3	7.1	6.8	6.9	6.9	6.7	6.8	7.5	7.3	7.4	8.1	7.7	7.8
4	7.1	6.8	6.9	7.0	6.7	6.7	7.4	7.3	7.4	7.8	7.7	7.7
5	7.0	6.8	6.8	6.9	6.7	6.7	7.4	7.3	7.4	7.7	7.2	7.6
6	6.9	6.8	6.8	7.1	6.6	6.8	7.4	7.3	7.3	7.9	7.6	7.7
7	7.1	6.8	6.9	6.9	6.7	6.8	7.3	7.2	7.3	8.1	7.7	7.9
8	7.1	6.8	6.9	6.9	6.6	6.8	7.3	7.1	7.2	8.1	7.6	7.9
9	6.9	6.9	6.9	7.0	6.8	6.9	7.3	7.1	7.2	8.2	7.8	8.0
10	7.0	6.8	6.9	7.0	6.8	6.9	7.3	7.0	7.1	8.1	7.7	7.9
11	6.9	6.8	6.9	7.1	7.0	7.0	7.3	7.1	7.2	8.1	7.6	7.8
12	7.1	6.8	6.9	7.1	7.0	7.1	7.4	7.2	7.3	8.2	7.7	7.9
13	7.0	6.8	6.9	7.0	6.7	6.9	7.4	7.2	7.3	8.2	7.7	7.9
14	7.1	6.8	6.9	7.1	7.0	7.0	7.4	6.8	7.3	7.9	7.7	7.9
15	7.0	6.9	7.0	7.2	7.1	7.1	7.4	7.3	7.3	7.7	7.4	7.5
16	7.2	7.0	7.1	7.2	7.1	7.2	7.6	7.2	7.4	7.6	7.4	7.5
17	7.3	7.0	7.1	7.1	6.8	7.1	7.6	7.4	7.5	7.8	7.5	7.6
18	---	---	---	7.2	7.1	7.1	7.7	7.2	7.6	7.8	7.1	7.6
19	7.0	6.9	6.9	7.1	6.9	7.0	7.7	7.5	7.5	7.9	7.5	7.7
20	7.1	6.9	6.9	7.1	6.7	7.0	7.6	7.4	7.5	8.0	7.6	7.8
21	7.0	6.9	6.9	7.1	7.1	7.1	7.7	7.1	7.6	8.0	7.5	7.8
22	7.0	6.6	7.0	7.3	7.2	7.2	7.7	7.5	7.6	8.2	7.6	7.8
23	7.2	6.9	7.1	7.3	7.3	7.3	7.7	7.4	7.6	8.1	7.6	7.8
24	7.1	6.9	7.0	7.4	7.2	7.3	7.5	7.3	7.4	8.1	7.5	7.8
25	7.0	6.7	6.9	7.4	7.3	7.3	7.6	7.4	7.5	7.9	7.5	7.7
26	6.9	6.4	6.7	7.5	7.4	7.4	7.7	7.4	7.5	7.8	7.2	7.5
27	6.9	6.7	6.7	7.5	7.1	7.3	7.7	7.5	7.6	7.7	7.1	7.5
28	6.9	6.7	6.8	7.3	7.2	7.3	7.7	7.3	7.6	7.5	7.2	7.3
29	7.0	6.8	6.9	7.4	7.3	7.3	7.7	7.5	7.6	7.5	7.4	7.4
30	7.0	6.9	6.9	7.4	7.4	7.4	7.8	7.5	7.6	7.7	7.4	7.5
31	---	---	---	7.5	7.4	7.4	7.7	7.3	7.6	---	---	---
MONTH	7.3	6.4	6.9	7.5	6.6	7.1	7.8	6.8	7.4	8.2	7.1	7.7

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	8.0	6.5	7.5	15.0	13.0	14.5
2				---	---	---	8.5	7.5	8.0	14.5	13.5	14.0
3				---	---	---	9.5	8.0	9.0	14.0	13.5	13.0
4				---	---	---	9.5	8.0	9.0	13.0	12.0	12.5
5				---	---	---	9.5	8.0	9.0	13.5	13.0	13.0
6				---	---	---	9.5	8.0	8.5	13.5	13.0	13.5
7				5.5	4.5	5.0	8.0	7.0	7.5	14.0	13.0	13.5
8				5.0	4.0	4.5	8.0	6.5	7.0	13.5	13.0	13.0
9				3.5	2.5	3.0	8.0	7.0	7.5	13.5	12.5	13.0
10				3.0	2.0	2.5	8.0	7.0	7.5	13.0	12.0	12.5
11				3.5	2.5	3.0	8.5	7.5	8.0	14.5	12.5	13.5
12				---	---	---	10.5	8.5	9.5	15.0	14.0	14.5
13				---	---	---	11.0	10.5	10.5	16.0	15.0	15.5
14				---	---	---	10.5	9.0	9.5	16.0	15.0	15.5
15				---	---	---	9.0	9.0	9.0	15.0	14.0	14.5
16				---	---	---	9.5	9.0	9.0	14.0	13.5	13.5
17				6.5	6.5	6.5	10.5	9.0	10.0	14.0	12.5	13.5
18				6.5	6.0	6.5	11.0	10.0	10.5	14.0	13.0	13.5
19				7.0	6.5	7.0	10.5	10.5	10.5	14.0	12.5	13.0
20				8.0	7.5	8.0	11.0	10.0	10.5	16.5	14.0	15.0
21				8.5	8.0	8.5	12.0	10.5	11.0	18.5	16.5	17.5
22				7.0	6.5	7.0	11.0	10.0	10.5	20.0	18.0	18.5
23				6.0	6.0	6.0	10.0	9.0	9.5	20.0	19.5	19.5
24				6.0	5.5	6.0	9.5	9.0	9.0	19.5	18.5	19.0
25				6.5	6.5	6.5	9.5	9.5	9.5	19.5	18.0	19.0
26				8.0	7.0	7.0	12.0	9.5	10.5	20.5	19.0	19.5
27				8.5	8.0	8.0	14.0	12.0	13.0	20.5	19.5	20.0
28				8.5	8.0	8.0	14.0	13.5	13.5	20.0	18.0	19.0
29				6.5	4.5	4.5	15.0	13.5	14.0	18.0	16.5	17.0
30				4.5	3.5	4.0	15.0	15.0	15.0	16.5	15.0	15.5
31				7.0	4.5	6.0	---	---	---	15.5	14.5	15.0
MONTH				8.5	2.0	6.0	15.0	6.5	10.0	20.5	12.0	15.5

01454720 LEHIGH RIVER AT EASTON, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	15.5	15.0	15.0	22.0	20.0	21.0	23.5	22.0	22.5	23.5	22.5	23.0
2	15.5	15.5	15.5	21.0	20.0	20.5	24.0	23.0	23.5	23.0	22.0	23.5
3	16.0	15.5	15.5	22.0	21.0	21.5	24.0	23.5	23.5	23.0	21.5	22.0
4	17.0	15.5	16.0	22.0	21.0	21.5	24.0	23.5	23.5	22.5	21.5	22.0
5	19.5	17.0	18.0	23.0	22.0	22.5	24.0	23.5	24.0	21.5	20.0	21.0
6	20.0	19.0	19.5	23.5	21.5	22.0	23.5	22.5	23.0	20.5	19.5	20.0
7	21.0	19.5	20.5	22.0	21.5	21.5	24.0	23.5	24.0	20.5	18.5	19.5
8	22.5	21.0	21.5	22.0	20.5	21.0	24.5	23.5	24.0	20.5	18.5	19.5
9	24.0	22.0	23.0	21.5	20.0	20.5	25.0	24.5	25.0	20.5	18.5	19.5
10	25.0	23.5	24.0	21.0	18.5	19.5	25.0	24.0	24.5	20.5	19.0	20.0
11	25.5	24.0	25.0	20.5	18.0	19.0	24.0	23.5	23.5	21.5	19.5	20.5
12	25.5	24.5	25.0	22.0	20.5	21.0	24.0	23.5	23.5	22.5	20.5	21.5
13	25.5	24.0	25.0	22.5	21.5	22.0	24.0	23.5	24.0	22.5	21.0	22.0
14	25.0	23.5	24.0	23.0	21.5	22.0	25.0	24.0	23.5	22.5	21.5	22.0
15	24.5	23.0	23.5	23.5	22.0	23.0	25.5	24.5	25.0	22.5	21.0	21.5
16	23.0	21.5	22.0	24.0	23.0	23.5	26.0	25.0	25.0	21.0	18.0	19.5
17	22.0	20.0	21.0	24.0	23.0	23.5	25.5	24.5	25.0	18.5	17.5	18.0
18	20.0	19.0	19.5	24.0	22.0	23.0	25.0	24.0	24.5	18.5	16.5	17.5
19	21.0	19.0	20.0	22.0	21.0	21.5	24.0	22.5	23.5	19.0	17.0	18.0
20	22.5	20.5	21.5	22.0	21.0	21.5	22.5	21.5	22.0	20.0	18.0	19.0
21	22.5	21.5	22.0	21.5	21.0	21.0	22.0	21.5	21.5	20.5	19.0	19.5
22	23.0	22.0	22.5	22.5	20.5	21.5	22.0	21.5	22.0	21.0	19.0	20.0
23	23.0	22.5	22.5	23.0	21.5	22.5	22.5	21.5	22.0	21.0	19.5	20.5
24	22.5	21.0	22.0	23.5	23.0	23.0	22.5	22.0	22.0	22.0	20.5	21.0
25	22.0	20.0	21.0	23.5	23.0	23.5	22.5	22.0	22.0	22.5	21.0	22.0
26	22.5	21.5	22.0	23.5	22.5	23.0	22.5	22.0	22.0	22.5	21.5	21.5
27	23.5	21.5	22.5	23.0	20.5	21.5	22.5	22.0	22.0	21.5	19.0	20.0
28	24.5	23.0	24.0	20.5	19.5	20.0	23.0	22.0	22.5	19.0	16.5	17.5
29	24.5	22.5	24.0	20.5	19.5	20.0	23.5	22.5	23.0	16.5	15.5	16.0
30	23.5	22.0	23.0	21.5	20.0	20.5	23.5	22.5	23.0	16.5	15.0	15.5
31	---	---	---	22.0	21.0	21.5	24.0	22.5	23.0	---	---	---
MONTH	25.5	15.0	21.5	24.0	18.0	21.5	26.0	21.5	23.5	23.5	15.0	20.0

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1				---	---	---	12.7	12.3	12.5	10.3	9.3	9.7
2				---	---	---	12.6	12.2	12.4	10.3	9.7	10.0
3				---	---	---	12.6	12.0	12.3	10.1	9.7	9.9
4				---	---	---	12.6	11.8	12.0	10.1	9.5	9.9
5				---	---	---	---	---	---	10.3	9.7	10.0
6				---	---	---	---	---	---	10.3	9.9	10.1
7				13.2	12.9	13.1	12.4	10.3	11.1	10.2	10.0	10.1
8				13.2	12.9	13.1	12.4	10.8	11.1	10.1	9.6	9.8
9				13.7	13.1	13.4	12.6	11.3	11.7	10.3	9.5	10.0
10				13.9	13.5	13.6	12.3	11.8	11.6	10.6	10.1	10.4
11				13.7	13.3	13.5	11.8	11.4	11.6	10.4	10.0	10.2
12				---	---	---	11.4	10.9	11.1	10.0	9.7	9.8
13				---	---	---	11.0	10.8	10.9	9.7	9.3	9.6
14				---	---	---	11.2	10.9	11.1	9.7	9.2	9.4
15				---	---	---	11.3	11.2	11.2	9.9	9.4	9.7
16				---	---	---	11.2	11.0	11.1	10.0	9.6	9.8
17				12.8	12.4	12.6	11.1	11.0	11.0	10.2	9.7	9.9
18				12.9	12.5	12.7	11.1	10.9	11.0	10.2	9.3	9.8
19				12.9	12.3	12.6	11.1	10.9	11.0	10.4	9.7	10.0
20				12.6	12.0	12.3	11.2	11.0	11.1	10.0	9.0	9.6
21				12.0	11.7	11.8	11.0	10.9	10.9	9.1	8.2	8.5
22				12.5	11.8	12.2	11.2	10.9	11.1	8.7	8.3	8.5
23				12.9	12.5	12.7	11.3	11.1	11.2	8.5	7.9	8.1
24				13.2	12.8	13.0	11.2	11.1	11.2	8.5	7.9	8.2
25				12.9	12.5	12.5	11.2	10.5	11.0	8.7	8.1	8.4
26				12.8	12.3	12.3	11.0	10.0	10.9	8.4	7.9	8.1
27				12.6	12.0	12.0	10.5	9.8	10.2	8.0	7.5	7.7
28				12.2	11.8	11.8	10.2	9.7	10.0	7.9	7.6	7.8
29				13.1	12.1	12.1	10.2	9.3	10.0	8.7	7.4	8.1
30				13.4	13.1	13.1	9.7	9.3	9.5	9.0	7.7	8.7
31				13.1	12.7	12.7	---	---	---	9.2	8.2	8.9
MONTH				13.9	11.7	12.7	12.7	9.3	11.1	10.6	7.4	9.3

01454720 LEHIGH RIVER AT EASTON, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.2	8.3	8.8	7.9	7.1	7.5	8.8	7.9	8.4	8.6	7.2	7.8
2	8.9	8.0	8.6	8.0	7.8	7.9	8.7	7.8	8.2	9.3	7.5	8.2
3	8.9	8.5	8.7	7.9	7.6	7.7	9.5	7.7	8.4	9.5	7.7	8.4
4	9.0	8.3	8.8	7.8	7.6	7.7	9.7	8.6	9.0	8.6	7.6	8.0
5	8.3	7.5	7.8	7.6	7.2	7.4	9.1	8.4	8.6	9.2	7.7	8.3
6	7.6	7.3	7.5	7.4	6.6	7.1	9.2	8.3	8.7	9.7	8.3	8.8
7	7.3	6.9	7.1	8.1	6.8	7.4	9.0	8.4	8.6	10.4	8.3	9.1
8	6.9	6.5	6.8	8.9	7.5	8.3	8.7	8.1	8.7	10.3	8.4	9.1
9	6.8	6.4	6.6	9.4	8.8	9.2	8.9	8.2	8.4	10.2	8.3	9.1
10	6.4	5.9	6.2	9.5	9.2	9.4	8.3	7.1	7.6	9.6	8.1	8.7
11	6.0	5.7	5.9	9.4	9.0	9.3	8.0	7.2	7.5	10.1	8.0	8.8
12	6.3	5.6	5.8	9.0	3.7	8.8	8.0	7.5	7.7	10.1	7.7	8.6
13	6.8	5.6	6.1	9.1	8.7	8.9	8.1	7.5	7.8	10.0	7.5	8.5
14	6.6	6.1	6.4	8.9	8.6	8.7	8.2	7.5	7.8	9.0	7.1	8.1
15	7.1	6.0	6.6	8.8	8.5	8.6	8.3	7.4	7.7	8.5	7.1	7.6
16	7.8	6.8	7.2	8.5	7.9	8.3	8.5	7.3	7.8	9.4	7.5	8.4
17	7.4	7.0	7.2	8.2	7.9	8.1	8.4	7.3	7.7	10.3	8.6	9.2
18	---	---	---	8.5	8.1	8.2	8.8	7.2	7.9	10.4	8.7	9.5
19	---	---	---	8.8	8.3	8.6	8.2	7.5	7.8	10.4	8.3	9.2
20	7.6	7.1	7.4	8.8	8.6	8.7	9.2	7.7	8.4	10.4	8.0	9.0
21	7.4	7.0	7.2	8.8	8.6	8.7	9.5	8.1	8.6	10.4	7.7	8.8
22	7.5	6.9	7.1	8.8	8.5	8.7	9.5	8.2	8.7	10.4	7.6	8.8
23	7.4	6.6	6.9	8.6	8.3	8.5	8.8	7.8	8.3	10.5	7.6	8.8
24	7.2	6.6	6.8	8.4	8.0	8.2	8.7	7.7	8.1	9.9	7.3	8.4
25	7.3	6.2	6.8	8.6	8.1	8.3	9.2	7.6	8.3	9.4	7.0	8.0
26	6.6	4.6	6.1	8.8	8.1	8.4	9.4	8.0	8.5	9.1	6.8	7.7
27	6.6	5.6	6.0	8.2	8.0	8.1	9.4	8.0	8.4	9.5	6.9	8.0
28	5.6	5.0	5.3	8.9	8.1	8.6	9.2	7.9	8.4	8.8	7.6	8.1
29	6.8	4.7	5.8	9.2	8.7	8.9	8.6	7.7	8.0	9.9	8.0	8.7
30	7.3	6.2	6.6	9.0	8.6	8.8	8.7	7.3	7.8	10.4	8.4	9.2
31	---	---	---	8.9	8.4	8.6	8.3	7.3	7.7	---	---	---
MONTH	9.2	4.6	6.9	9.5	6.6	8.4	9.7	7.1	8.2	10.5	6.8	8.6

LAKES AND RESERVOIRS IN LEHIGH RIVER BASIN

01447780 FRANCIS E. WALTER RESERVOIR (formerly published as Bear Creek Reservoir).--Lat 41°06'45", long 75°43'15", Luzerne County, Hydrologic Unit 02040106, at dam on Lehigh River, 2,200 ft (670 m) downstream from Bear Creek and 5 mi (8 km) northwest of White Haven. DRAINAGE AREA, 289 mi^2 (749 km^2). PERIOD OF RECORD, February 1961 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earthfill embankment covered with a rock shell, with concrete spillway at elevation 1,450.0 ft (441.96 m). Storage began Feb. 17, 1961; water in reservoir first reached conservation pool elevation in June 1961. Total capacity at elevation 1,450.0 ft (441.96 m) is 110,700 acre-ft (136 hm^3) of which 108,700 acre-ft (134 hm^3 is controlled storage above elevation 1.300.0 ft (396.24 m), conservation pool. Dead storage is 2,000 acre-ft (2.47 hm^3). Reservoir is used for flood control and recreation. Flow regulated by three gates and low-flow by-pass system. Records furnished by the Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 42,600 acre-ft (52.5 hm^3) June 26, 1972, elevation, 1,398.20 ft (426.171 m); minimum (after establishment of concervation pool), 1,220 acre-ft (1.50 hm^3) Sept. 17, 1980, elevation, 1,291.33 ft (393.597 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 41,200 acre-ft (50.8 hm^3) Apr. 7, elevation, 1,396.73 ft (425.723 m); minimum, 1,520 acre-ft (1.87 hm^3) Oct. 24, elevation, 1,295.19 ft (394.774 m).

01449400 PENN FOREST RESERVOIR.--Lat 40°55'45", long 75°33'45", Carbon County, Hydrologic Unit 02040106, at dam on Wild Creek, 0.7 mi (1.1 km) upstream from Hatchery, 2.6 mi (4.2 km) upstream from Wild creek Dam, 4.4 mi (7.1 km) upstream from mouth, and 10 mi (16 km) northeast of Palmerton. DRAINAGE AREA, 16.5 mi^2 (42.7 km^2). PERIOD OF RECORD, October 1958 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by an earthfill dam, with ungated concrete spillway at elevation 1,000.00 ft (304.800 m). Storage began in October 1958. Capacity at elevation 1,000.00 ft (304.800 m) is 19,980 acre-ft (24.6 hm^3). Resevoir is used for municipal water supply. Figures given herein represent total contents. Regulation is done by valves on pipe through dam. Records furnished by city of Bethlehem. Figures given herein include diversion, since October 1969, from Tunkhannock Creek basin in to Wild Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 20,800 acre-ft (25.7 hm^3) Apr. 16, 1983, elevation, 1,001.69 ft (305.315 m); minimum, 176 acre-ft (0.217 hm^3) Oct. 6, 1965, elevation, 902.40 ft (275.052 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 20,560 acre-ft (25.4 hm^3) Apr. 6, elevation, 1001.19 ft (305.163 m); minimum, 14,640 acre-ft (18.1 hm^3) Nov. 28, elevation, 987.40 ft (300.960 m).

01449700 WILD CREEK RESERVOIR.--Lat 40°53'50", long 75°33'50", Carbon County, Hydrologic Unit 02040106, at dam on Wild Creek, 1.6 mi (2.6 km) upstream from mouth, 2.4 mi (3.9 km) south of Hatchery, and 7.5 mi (12 km) northeast of Palmerton. DRAINAGE AREA, 22.2 mi^2 (57.5 km^2). PERIOD OF RECORD, January 1941 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city of Bethlehem).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 820.00 ft (249.936 m). Storage began January 27, 1941; water in reservoir first reached minimum pool elevation in February 1941. Total capacity at elevation 820.00 ft (249.936 m) is 12,500 acre-ft (15.4 hm^3) of which 12,000 acre-ft (15 hm^3) is controlled storage. Reservoir is used for municipal water supply. Figures given herein represent usable contents. Regulation is accomplised by valves on pipe through dam. Records furnished by city of Bethlehem. Since October 1969 the basin upstream has received diversion from Tunkhannock Creek basin.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 12,880 acre-ft (15.9 hm^3) May 23, 1942, elevation, 822.93 ft (25.829 m); minimum (after first filling), 2,680 acre-ft (3.30 hm^3) Nov. 15, 1966, elevation, 774.10 ft (235.946 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 12,450 acre-ft (15.4 hm^3) Apr. 6, elevation, 821.49 ft (250.390 m), minimum, 10,660 acre-ft (13.1 hm^3) Sept. 20, elevation, 814.87 ft (248.372 m).

01449790 BELTZVILLE LAKE.--Lat 40°50'56", long 75°38'19", Carbon County, Hydrologic Unit 02040106, at dam on Pohopoco Creek, 0.45 mi (0.72 km) upstream from gaging station on Pohopoco Creek, 0.55 mi (0.88 km) upstream from Sawmill Run and 2.3 mi (3.7 km) northeast of Parryville. DRAINAGE AREA, 96.3 mi^2 (249.4 km^2). PERIOD OF RECORD, February 1971 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by an earth and rockfill dam with ungated, partially lined spillway at elevation 651.00 ft (198.425 m). Storage began Feb. 8, 1971. Capacity at elevation 651.00 ft (198.425 m) is 68,300 acre-ft (84.2 hm^3). Ordinary minimum (conservation) pool elevation is 628.00 ft (191.414 m), capacity, 41,250 acre-ft (50.9 hm^3). Dead storage is 1,390 acre-ft (1.71 hm^3). Reservoir is used for recreation, flood control, low-flow augmentation and water supply. Figures given herein represent total contents. Regulation is accomplished by a multi-level water-quality outlet system, and two flood-control gates. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 49,730 acre-ft (61.3 hm^3) Jan. 29, 1976, elevation, 636.30 ft (193.444 m); minimum, 15,110 acre-ft (18.6 hm^3) Mar. 31, 1983, elevation, 588.79 ft (179.463 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 48,300 acre-ft (59.6 hm^3) Apr. 7, elevation, 634.98 ft (193.542 m); minimum, 37,200 acre-ft (45.9 hm^3) Oct. 1, elevation [illegible]23.54 ft (190.055 m).

LAKES AND RESERVOIRS IN LEHIGH RIVER BASIN

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01447780 Francis E. Walter Reservoir			01449400 Penn Forest Reservoir		
Sept. 30	1300.16	2020	--	993.60	17140	--
Oct. 31	1307.71	2810	+ 12.8	989.94	15620	- 24.7
Nov. 30	1305.63	2580	- 3.9	987.78	14790	- 13.9
Dec. 31	1306.23	2650	+ 1.1	997.80	18990	+ 68.3
CAL YR 1983	--	--	+ 0.8	--	--	+ 3.2
Jan. 31	1300.79	2080	- 9.3	1000.15	20070	+ 17.6
Feb. 29	1304.77	2480	+ 7.0	1000.26	20130	+ 1.0
Mar. 31	1296.79	1660	- 13.3	1000.18	20080	- 0.8
Apr. 30	1300.50	2050	+ 6.6	1000.21	20100	+ 0.3
May 31	1333.45	17900	+ 258	1000.69	20380	+ 4.6
June 30	1311.80	3310	- 245	1000.33	20170	- 3.5
July 31	1300.50	2050	- 20.5	1000.07	20020	- 2.4
Aug. 31	1302.97	2300	+ 4.1	999.90	19930	- 1.5
Sept. 30	1300.00	2000	- 5.0	997.03	18640	- 21.7
WTR YR 1984	--	--	- 0.0	--	--	+ 2.1
	01449700 Wild Creek Reservoir			01449790 Beltzville Lake		
Sept. 30	815.27	10770	--	625.60	39000	--
Oct. 31	815.36	10800	+ 0.5	624.15	37700	- 21.1
Nov. 30	816.27	11050	+ 4.2	626.52	41700	+ 67
Dec. 31	819.20	11840	+ 12.8	627.96	41200	- 8.1
CAL YR 1983	--	--	+ 1.9	--	--	+ 35
Jan. 31	816.03	10990	- 13.8	628.04	41300	+ 1.6
Feb. 29	820.15	12040	+ 18.3	627.88	41100	- 3.5
Mar. 31	820.13	12040	0.0	627.65	40900	- 3.3
Apr. 30	820.21	12060	+ 0.3	628.18	41400	+ 8.4
May 31	821.04	12310	+ 4.1	632.42	45600	+ 68
June 30	820.21	12060	- 4.2	628.22	41500	- 69
July 31	820.05	12020	- 0.7	628.08	41300	- 3.3
Aug. 31	817.21	11310	- 11.5	628.15	41400	+ 1.6
Sept. 30	815.92	10960	- 5.9	627.69	41000	- 6.7
WTR YR 1984	--	--	+ 0.3	--	--	+ 2.8

01459500 TOHICKON CREEK NEAR PIPERSVILLE, PA

LOCATION.--Lat 40°26'01", long 75°07'01", Bucks County, Hydrologic Unit 02040105, on right bank at highway bridge, 1.5 mi (2.4 km) northeast of Pipersville, and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--97.4 mi² (252.3 km²).

PERIOD OF RECORD.--July 1935 to current year.

REVISED RECORDS.--WDR PA-75-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 258.96 ft (78.931 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Regulation at low flow by mills above station, and since December 1973 by Nockamixon Lake about 6.2 mi (10.0 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 148 ft³/s (4.191 m³/s), 20.68 in/yr (525 mm/yr), adjusted for storage since December 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft³/s (459 m³/s) July 7, 1984, gage height, 11.32 ft (3.450 m), from rating curve extended above 3,600 ft³/s (102 m³/s) on basis of slope-area measurement at gage height 10.48 ft (3.194 m); minimum, 0.05 ft³/s (0.001 m³/s) Sept. 29, 1941; minimum daily, 0.1 ft³/s (0.003 m³/s) Sept. 24, 29, Oct. 6, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,200 ft³/s (459 m³/s) July 7, gage height, 11.32 ft (3.450 m); minimum daily, 4.0 ft³/s (0.11 m³/s) Oct. 1, 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	47	269	125	86	256	890	120	581	2370	55	7.6
2	4.2	16	154	103	84	146	603	85	291	2620	45	7.5
3	4.0	13	122	100	86	104	371	74	164	606	40	9.0
4	4.0	13	789	97	579	80	302	2350	120	254	35	14
5	4.1	281	962	94	527	90	5170	979	87	145	51	12
6	4.5	320	511	103	348	308	3050	392	68	248	45	11
7	4.1	11	573	88	220	368	762	223	56	6750	41	10
8	4.1	5.4	320	72	147	240	366	254	45	1930	40	9.8
9	4.1	5.0	187	58	102	190	219	429	39	452	38	9.2
10	4.1	7.2	133	43	91	86	158	284	33	206	61	8.8
11	4.1	38	101	40	157	73	124	178	27	152	86	8.4
12	5.9	31	490	37	350	64	105	138	23	147	68	8.2
13	6.4	18	3860	36	388	52	92	130	20	109	120	7.5
14	6.0	14	3060	34	400	1090	86	119	23	72	125	6.9
15	5.0	43	851	32	1960	1030	95	92	20	51	79	7.2
16	4.4	672	388	31	1640	862	649	75	16	49	50	6.4
17	4.3	476	224	29	716	811	713	57	15	53	37	6.0
18	4.3	208	141	28	453	561	401	47	28	80	28	5.8
19	8.5	114	111	27	329	133	261	47	75	205	22	5.7
20	6.8	79	82	26	254	161	214	53	90	137	22	5.6
21	4.9	473	62	25	195	188	160	274	57	410	17	5.5
22	4.4	390	400	23	147	250	110	234	39	288	14	5.4
23	8.6	194	440	23	123	204	133	168	29	170	15	5.2
24	342	135	400	62	1050	142	201	234	32	102	16	5.1
25	281	994	200	140	777	114	190	159	1190	64	14	5.0
26	142	862	76	280	429	102	141	152	947	46	11	5.1
27	78	395	135	300	255	86	107	435	295	254	9.9	5.2
28	47	408	250	280	311	188	89	351	135	323	9.1	5.4
29	37	1120	400	130	438	793	113	2770	79	182	8.6	5.9
30	28	568	335	105	---	929	136	5320	92	109	8.0	6.4
31	22	---	140	90	---	964	---	1730	---	74	7.8	---
TOTAL	1091.6	7950.6	16169	2661	12642	10665	16031	17953	4716	18658	1218.4	220.8
MEAN	35.2	265	522	85.8	436	344	534	579	157	602	39.3	7.36
MAX	342	1120	3860	300	1960	1090	5170	5320	1190	6750	125	14
MIN	4.0	5.0	62	23	84	52	86	47	15	46	7.8	5.0
†	-6.8	+30.6	-8.0	+2.3	+1.2	+11.4	-11.8	-1.1	+31.4			
MEAN‡	28.4	296	514	88.1	437	355	522	578	188	577	25.6	3.88
CFSM‡	.29	3.04	5.28	.90	4.49	3.64	5.36	5.93	1.93	5.92	.26	.04
IN‡	.33	3.44	5.98	1.02	5.08	4.12	6.07	6.71	2.18	6.70	.29	.05

CAL YR 1983 TOTAL 85227.9 MEAN 234 MAX 3860 MIN 3.4 MEAN‡ 235 CFSM‡ 2.41 IN‡ 32.70
WTR YR 1984 TOTAL 109976.4 MEAN 300 MAX 6750 MIN 4.0 MEAN‡ 301 CFSM‡ 3.09 IN‡ 41.97

† Change in contents in Nockamixon Lake, equivalent in cubic feet per second, furnished by Pennsylvania Department of Enviromental Resources.

‡ Adjusted for change in contents in Nockamixon Lake.

RESERVOIR IN TOHICKON CREEK BASIN

01459350 NOCKAMIXON RESERVOIR.--Lat 40°28'13", long 75°11'10", Buck County, Hydrologic Unit 02040105, at dam on Tohickon Creek, 6.2 mi (10.0 km) upstream from gaging station on Tohickon Creek, 2.9 mi (4.7 km) upstream from Mink Run and 1.3 mi (2.1 km) east of Ottsville.

DRAINAGE AREA, 73.3 mi^2 (189.8 km^2).

PERIOD OF RECORD, December 1973 to current year. GAGE, water stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Department of Environmental Resources).

Reservoir formed by earthfill dam with concrete spillway at elevation 395.0 ft (120.40 m). Storage began December 1973. Total capacity 66,500 acre-ft (82.0 hm^3) at elevation 410 ft (124.97 m). Reservoir is used primarily for recreation, but can be used for water supply and flood control. Records furnished by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 44,380 acre-ft (54.7 hm^3) Jan. 20, 1979, elevation 397.85 ft (121.26 m); minimum (after first filling) 15,900 acre-ft (19.6 hm^3) around Dec. 31, 1975, elevation 372.78 ft (113.62 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 43,850 acre ft (54.1 hm^3) July 7, elevation 397.50 ft (121.16 m); minimum, 38,800 acre-ft (47.8 hm^3) Nov. 6, elevation 394.00 ft (120.09 m).

EXTREMES FOR 1983 WATER YEAR: Maximum contents, 42,120 acre-ft (51.9 hm^3) April 16, elevation 396.35 ft (120.81 m); minimum, 39,360 acre-ft (48.5 hm^3) Sept. 30, elevation 394.40 ft (120.21 m).

EXTREMES FOR 1982 WATER: Maximum contents, 42,200 acre-ft (52.0 hm^3) April 4, elevation 396.40 ft (120.82 m); minimum, 39,780 acre-ft (49.0 hm^3) Sept. 30, elevation 394.70 ft (120.30 m).

EXTREMES FOR 1981 WATER YEAR: Maximum contents, 40,480 acre-ft (49.9 hm^3) Feb 22, elevation 395.20 ft (120.46 m), minimum, 32,660 acre-ft (40.3) Feb 2, elevation 389.30 ft (118.66 m).

EXTREMES FOR 1980 WATER YEAR: Maximum contents, 42,240 acre-ft (52.1 hm^3) March, elevation 396.43 ft (120.83); minimum, 38,970 acre-ft (48.1 hm^2) August, elevation 394.12 ft (120.13 m).

EXTREMES FOR 1979 WATER YEAR: Maximum contents, 44,380 acre-ft (54.7 hm^3) Jan 20, elevation 397.85 ft (121.26 m); minimum, 36,100 acre-ft (44.5 hm^3) Dec. 19, elevation 392.00 ft (119.48 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01459350	Nockamixon Reservoir				
Sept. 30	394.40	39360	--			
Oct. 31	394.10	38940	- 6.8			
Nov. 30	395.40	40760	+ 30.6			
Dec. 31	395.05	40270	- 8.0			
CAL YR 1983	--	--	- 0.1			
Jan. 31	395.15	40410	+ 2.3			
Feb. 29	395.20	40480	+ 1.2			
Mar. 31	395.70	41180	+ 11.4			
Apr. 30	395.20	40480	- 11.8			
May 31	395.15	40410	- 1.1			
June 30	396.45	42280	+ 31.4			
July 31	395.40	40760	- 24.7			
Aug. 31	394.80	39920	- 13.6			
Sept. 30	394.65	39710	- 3.5			
WTR YR 1984	--	--	+ 0.5			

01461000 DELAWARE RIVER AT LUMBERVILLE, PA

LOCATION.--Lat 40°24'27", long 75°02'16", Bucks County, Hydrologic Unit 02040105, at pedestrian bridge at Lumberville, 1.4 mi upstream of Lockatong Creek.

DRAINAGE AREA.--6,598 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	OXYGEN, DISSOLVED (PERCENT SATURATION)	OXYGEN DEMAND, BIOCHEMICAL, 5 DAY (MG/L)	COLIFORM, FECAL, EC BROTH (MPN)	STREPTOCOCCI FECAL (MPN)
OCT 13...	1300	4180	228	8.0	17.5	9.0	--	E1.3	50	79
JAN 18...	0915	6540	222	8.0	.5	13.3	--	E1.7	170	17
APR 09...	1030	48400	103	7.5	6.0	11.7	--	E1.7	130	22
JUN 05...	1400	25600	122	7.7	16.5	9.5	98	E1.6	230	17
JUL 25...	1445	8190	218	8.7	25.0	9.8	119	E1.5	230	49
AUG 20...	1330	4880	228	8.6	23.5	8.8	104	E1.6	40	20
SEP 24...	1045	3220	246	8.1	20.5	7.9	87	E1.7	20	350

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 13...	83	21	7.4	11	1.5	51	26	16	.10
JAN 18...	77	20	6.6	11	1.4	45	27	17	.10
APR 09...	33	8.9	2.6	4.8	.90	17	15	9.0	<.10
JUN 05...	41	11	3.4	4.6	.90	25	16	7.4	<.10
JUL 25...	78	20	6.8	7.1	1.3	54	25	12	<.10
AUG 20...	83	21	7.5	8.8	1.6	60	23	13	.10
SEP 24...	96	24	8.7	11	1.7	64	27	16	<.10

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 13...	2.5	130	.125	1.6	.160	.58	2.2	.180	2.6
JAN 18...	5.8	141	.018	1.3	.600	.97	2.3	.110	2.8
APR 09...	3.7	54	.005	.70	.140	.54	1.2	.060	3.3
JUN 05...	4.0	84	.010	.69	<.050	.62	1.3	.070	2.7
JUL 25...	4.7	136	.019	1.0	.070	.20	1.2	.090	3.2
AUG 20...	4.1	130	.023	1.2	.090	.40	1.6	.080	2.1
SEP 24...	2.6	139	.042	1.5	.140	.60	2.1	.090	1.8

01461000 DELAWARE RIVER AT LUMBERVILLE, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
JUN 05...	1400	<.5	40	1	<10	30	2	20	5
SEP 24...	1045	<.5	<10	1	<10	60	1	<10	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
JUN 05...	620	7	70	<.1	5	<1	40	<1
SEP 24...	150	1	30	.2	2	<1	10	<1

01462500 DELAWARE RIVER AT WASHINGTON CROSSING, NJ

LOCATION.--Lat 40°17'20", long 74°52'08", Mercer County, Hydrologic Unit 02040105, at bridge at Washington Crossing, 1.4 mi upstream of Jacobs Creek.

DRAINAGE AREA.--6,735 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

COOPERATION.--Field data and samples for laboratory analyses supplied by New Jersey Department of Environmental Protection, Division of Water Resources. Analyses of fecal coliform and fecal streptococci by the MPN method, and water-phase nutrients were performed by the New Jersey Department of Health, Division of Laboratories and Epidemiology.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUSR (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, EC BROTH (MPN)	STREP-TOCOCCI FECAL (MPN)
OCT 05...	1445	3050	230	8.5	21.0	10.4	--	E1.5	700	>2400
FEB 07...	1345	8460	204	7.8	1.0	13.0	--	E2.3	70	17
APR 09...	1300	53000	100	7.3	6.5	11.6	--	2.6	170	13
MAY 15...	1345	18600	134	7.9	13.0	10.7	102	E.9	<20	11
JUL 24...	1445	8360	217	8.3	24.0	8.9	106	--	330	27
AUG 14...	1445	5810	224	8.7	26.5	9.8	122	2.9	<20	79
SEP 24...	1430	3300	240	8.9	22.0	10.0	114	E1.7	80	11

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 05...	84	21	7.7	10	1.6	54	25	15	.10
FEB 07...	66	17	5.8	11	1.6	44	22	19	<.10
APR 09...	32	8.6	2.6	4.4	.90	18	14	8.0	<.10
MAY 15...	49	13	4.1	5.1	.90	30	17	8.7	.10
JUL 24...	78	20	6.8	6.9	1.4	53	23	11	<.10
AUG 14...	83	21	7.5	8.2	1.5	59	24	12	<.10
SEP 24...	95	24	8.6	11	1.7	64	27	16	.10

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
OCT 05...	2.5	117	.044	1.4	<.050	.38	1.8	.130	2.9
FEB 07...	4.8	122	.019	1.3	.310	1.3	2.5	.100	3.4
APR 09...	3.7	53	.006	.76	.240	.58	1.3	.060	3.0
MAY 15...	3.3	101	.013	.80	.170	.66	1.5	.050	2.0
JUL 24...	4.8	149	.015	1.1	<.050	.38	1.5	.080	2.6
AUG 14...	4.3	149	.031	1.5	<.050	.39	1.9	.080	2.3
SEP 24...	2.3	140	.045	1.6	.080	.28	1.9	.080	1.9

01462500 DELAWARE RIVER AT WASHINGTON CROSSING, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SULFIDE TOTAL (MG/L AS S)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
OCT									
05...	1445	<.5	<10	4	<10	210	<1	10	10
MAY									
15...	1345	<.5	30	<1	<10	<20	1	10	3

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	PHENOLS TOTAL (UG/L)
OCT								
05...	340	3	20	.1	6	<1	40	<1
MAY								
15...	170	2	30	<.1	3	<1	20	<1

01463500 DELAWARE RIVER AT TRENTON, NJ

(National stream quality accounting network and Radiochemical program station)

LOCATION.--Lat 40°13'18", long 74°46'42", Mercer County, Hydrologic Unit 02040105, on left bank 450 ft upstream from Calhoun Street Bridge at Trenton, 0.5 mi upstream from Assunpink Creek, and at mile 134.5.

DRAINAGE AREA.--6,780 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1913 to current year. October 1912 to February 1913 monthly discharge only, published in WSP 1302. Gage-height records collected in this vicinity since 1904 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 951: Drainage area. WSP 1302: 1913-20. WSP 1382: 1924, 1928.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1965, at datum 7.77 ft higher. Feb. 24, 1913, to Oct. 2, 1928, nonrecording gage on downstream side of highway bridge at site 500 ft downstream.

REMARKS.--Water-discharge records good. Diurnal fluctuations at medium and low flow caused by powerplants on tributary streams. Flow regulated by Lakes Wallenpaupack and Hopatcong, and by Pepacton, Cannonsville, Swinging Bridge, Toronto, Cliff Lake, Neversink, and Wild Creek Reservoirs (see Delaware River Basin, reservoirs in) and smaller reservoirs. Diversion from Pepacton, Cannonsville, and Neversink Reservoirs and to Delaware and Raritan Canal (see Delaware River Basin, diversions). Water diverted just above station by borough of Morrisville, PA, and city of Trenton for municipal supply (see Delaware River Basin, diversions).

AVERAGE DISCHARGE.--72 years, 11,740 ft³/s, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 329,000 ft³/s Aug. 20, 1955, elevation, 28.60 ft, from high-water mark in gage house, from rating curve extended above 230,000 ft³/s; minimum, 1,180 ft³/s Oct. 31, 1963, elevation, 7.26 ft. Flow in Delaware and Raritan Canal not included.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 11, 1903, reached an elevation of about 28.5 ft National Geodetic Vertical Datum of 1929, discharge estimated, 295,000 ft³/s. Maximum elevation since 1903, 30.6 ft National Geodetic Vertical Datum of 1929, Mar. 8, 1904, from floodmark (ice jam).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Elevation (ft)	Date	Time	Discharge (ft³/s)	Elevation (ft)
Dec. 15	0430	110000	18.27	May 30	1630	*152000	20.64
Feb. 16	1600	87300	16.72	July 7	0930	90700	16.96
Apr. 6	1715	133000	19.58				

Minimum discharge, 2,500 ft³/s Oct. 1, gage height, 7.89 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2810	3560	20500	15300	6010	18100	19800	13900	96200	12700	7910	4880
2	3100	3490	17500	13100	5270	16100	18700	14000	67200	23200	7340	4650
3	3300	3490	14800	12000	5080	14000	19400	12600	46800	25500	7180	4030
4	3280	3620	16500	11200	9670	12900	20400	25500	37700	19100	7710	4060
5	3090	3710	18300	10900	13200	12200	53200	39700	30400	15400	7580	4780
6	3010	3900	15400	10100	9610	13000	121000	34400	23700	20100	7550	4570
7	2940	3690	18400	9570	8550	13400	101000	27400	20200	49300	7000	4250
8	2990	3410	24700	8890	8610	12600	69800	24100	17600	34500	7500	3870
9	3190	3380	25200	7630	8010	11800	54400	25800	15600	26300	7040	3710
10	3110	3450	19900	7200	7390	10600	44500	25500	14000	19900	7100	3570
11	3010	4130	16600	8110	7330	10100	36300	23500	12100	16800	6840	3600
12	3170	4690	16200	7530	9880	9270	28700	20700	10700	17700	6750	3550
13	3560	5450	45100	6830	9790	8910	24300	18700	10600	15700	6110	3430
14	4150	4920	88200	6210	10200	15600	21600	18100	10200	14100	5860	3360
15	3860	5000	102000	7160	26100	14200	19800	18800	9750	12000	5840	3450
16	3840	8950	69000	6480	79500	13600	24200	19200	9470	11000	5610	3570
17	3640	11100	49300	5710	71500	13900	33800	18000	8900	11600	5150	3920
18	2920	8620	36800	5900	48800	14400	14190	16400	8510	10900	5230	3600
19	3340	7260	28100	6360	36300	13500	37900	15300	9350	15500	5310	3330
20	4010	6120	23800	6250	28600	13400	34600	14100	9470	13800	5010	3210
21	4430	7790	19300	5720	27400	14300	32900	16000	8640	13500	4900	3310
22	4100	10400	20800	5210	24400	17100	28300	14700	7310	12000	4880	3280
23	3980	9980	23100	5470	21200	20800	24900	14600	6330	9470	4930	3220
24	7300	9630	19200	5550	22600	20100	23600	15200	5970	8400	5430	3220
25	9260	12500	16000	7000	23400	17300	22400	15700	13300	8550	4980	3240
26	7030	17800	12300	8960	20800	15400	21200	14900	13000	8190	4750	3160
27	5480	17300	10900	9590	18300	14600	19500	14400	9270	10100	4540	3240
28	4770	15700	12000	9280	18800	15000	17800	13300	7640	11400	4210	3380
29	4470	20800	23900	8260	19400	20600	16400	26000	6800	9970	4080	3400
30	4180	21300	20900	6890	---	20700	14700	130000	6110	9180	4030	3180
31	3620	---	17500	6160	---	19500	---	129000	---	8180	4270	---
TOTAL	124940	245140	862200	250520	605700	456980	1047000	829500	552820	494040	182620	110020
MEAN	4030	8171	27810	8081	20890	14740	34900	26760	18430	15940	5891	3667
MAX	9260	21300	102000	15300	79500	20800	121000	130000	96200	49300	7910	4880
MIN	2810	3380	10900	5210	5080	8910	14700	12600	5970	8180	4030	3160

CAL YR 1983 TOTAL 5354360 MEAN14670 MAX29000 MIN 2470
WTR YR 1984 TOTAL 5761480 MEAN15740 MAX30000 MIN 2810

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: June 1968 to September 1978, May 1979 to current year.
pH: June 1968 to September 1978, May to September 1978, February 1980 to August 1982, April 1983 to current year.
WATER TEMPERATURES: October 1944 to September 1978, May 1979 to current year.
DISSOLVED OXYGEN: October 1962 to September 1978, May 1979 to current year.
SUSPENDED-SEDIMENT DISCHARGE: Water years 1949 to 1981.

INSTRUMENTATION.--Temperature recorder since October 1944, water-quality monitor since October 1962.

REMARKS.--Missing continuous water-quality records are the result of malfunction of sensor or sampling mechanism. Unpublished records of suspended sediment discharge for the period October 1, 1981 to March 31, 1982 are available in files of the district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 400 micromhos Jan. 24, 1959; minimum, 50 micromhos Mar. 19, 1945.
pH: Maximum, 10.3 August 9, 10, 1983; minimum, 5.3 June 22, 1972.
WATER TEMPERATURES: Maximum, 34.0°C June 18, 1957; minimum 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 18.4 mg/L January 10, 1980; minimum, 4.0 mg/L Nov. 9, 1972.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 285 micromhos Jan. 26; minimum, 63 micromhos July 7.
pH: Maximum, 9.9 June 12, 13; minimum, 6.9 July 7.
WATER TEMPERATURES: Maximum, 29.0°C Aug. 16; minimum 0.0°C on many days during the winter months.
DISSOLVED OXYGEN: Maximum, 15.2 mg/L Dec. 31; minimum, 6.7 mg/L Sept. 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC 14...	1330	92400	104	7.4	6.5	55	12.0	98	4.8	>1200	K3700
FEB 13...	1400	9650	200	--	4.0	14	13.7	102	1.9	--	>400
MAY 03...	1200	12500	152	7.8	13.5	1.3	11.4	109	1.6	K20	K1300
JUN 26...	1130	12800	167	7.9	22.0	40	7.8	89	3.5	--	1000
AUG 31...	1200	4250	238	8.5	25.5	1.5	9.4	115	3.9	K90	500

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
DEC 14...	39	11	2.8	4.6	1.3	22	17	6.8	<.10	4.4	63
FEB 13...	66	17	5.8	11	1.5	40	24	18	<.10	4.9	122
MAY 03...	54	14	4.6	6.6	1.0	33	20	11	.10	2.7	121
JUN 26...	61	16	5.0	6.2	1.6	41	20	9.1	.10	4.1	114
AUG 31...	88	22	7.9	9.3	1.6	61	28	14	.10	3.4	158

DATE	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
DEC 14...	343	85600	52	1.2	.230	1.8	.110	.050	.020	--
FEB 13...	24	625	67	1.3	.290	.80	.130	.080	.050	--
MAY 03...	2	68	14	.79	.030	.80	.110	.040	.020	2.0
JUN 26...	108	3730	96	1.0	.080	1.4	.200	.010	.040	3.7
AUG 31...	5	57	60	1.4	.080	.60	.180	.070	.060	1.8

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
DEC 14...	1330	40	1	29	<.5	<1	7	<3	2	31
FEB 13...	1400	20	1	38	<.5	<1	<1	<3	3	46
MAY 03...	1200	20	1	36	<1	<1	<1	<3	4	39
JUN 26...	1130	50	1	33	<1	<1	<1	<3	5	65
AUG 31...	1200	50	2	37	<1	1	1	<3	3	23

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
DEC 14...	1	5	13	.1	<10	3	<1	<1	46	<6
FEB 13...	2	<4	25	<.1	<10	3	<1	<1	72	<6
MAY 03...	1	<4	15	.4	<10	3	<1	<1	58	<6
JUN 26...	3	6	3	.2	<10	2	<1	<1	70	<6
AUG 31...	6	6	2	.1	<10	2	<1	<1	84	<6

DATE	ZINC, DISSOLVED (UG/L AS ZN)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DISSOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L)	URANIUM DISSOLVED, EXTRACTION (UG/L)
DEC 14...	40	--	--	--	--	--	--	--	--
FEB 13...	23	--	--	--	--	--	--	--	--
MAY 03...	19	<1.8	<.4	1.7	<.4	1.4	<.4	<.02	.03
JUN 26...	12	<1.9	5.4	2.2	3.9	1.9	3.4	.09	.03
AUG 31...	13	<2.6	.6	<1.9	.7	<1.7	.7	.06	.10

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
16...	1410	9330	56	1410	--
DEC					
14...	1320	92300	308	76700	--
14...	1330	92400	343	85600	52
15...	1520	99600	155	41700	--
FEB					
13...	1400	9650	24	625	67
28...	1440	19700	6	320	--
MAR					
30...	1245	20000	10	540	--
APR					
05...	1700	67100	352	63800	--
05...	2000	73600	330	65600	--
06...	0145	98800	485	129000	--
06...	1100	125000	566	191000	--
06...	1545	131000	505	179000	--
MAY					
03...	1200	12500	2	68	14
31...	1040	129000	213	74400	--
31...	1500	125000	168	56700	--
JUN					
26...	1130	12800	108	3730	96
AUG					
31...	1200	4250	5	57	60

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	18.0	17.5	17.5	11.0	9.0	10.0	6.0	5.0	5.5	.0	.0	.0
2	20.0	18.0	18.5	11.5	9.0	10.5	5.0	4.5	4.5	.5	.0	.5
3	21.5	18.0	19.5	11.5	10.5	11.0	4.5	4.0	4.0	.5	.5	.5
4	22.0	19.0	20.5	10.5	9.0	10.0	4.5	4.0	4.0	1.5	1.0	1.0
5	23.0	20.0	21.0	10.0	8.0	9.0	5.0	4.0	4.5	2.0	1.5	2.0
6	22.0	19.5	20.5	9.0	7.5	8.5	6.0	5.0	5.0	2.0	2.0	2.0
7	21.0	18.5	19.5	10.0	7.5	8.5	6.0	5.0	5.5	3.0	2.0	2.5
8	20.5	17.5	19.0	10.5	8.0	9.5	5.0	4.0	4.5	2.0	1.0	1.5
9	20.5	17.5	19.0	11.0	8.5	9.5	4.0	3.0	3.5	1.5	1.0	1.5
10	18.5	17.5	18.0	10.5	9.5	10.0	4.0	3.5	4.0	2.0	1.0	1.5
11	17.0	16.5	17.0	11.0	10.0	10.5	4.0	3.5	3.5	2.0	1.0	1.0
12	17.5	16.5	17.0	10.0	7.5	8.5	5.5	4.0	4.5	1.0	.0	.5
13	19.5	17.5	18.5	8.5	6.5	7.5	7.0	5.5	6.5	.0	.0	.0
14	19.5	17.5	18.5	7.5	7.0	7.0	7.0	6.0	6.5	.5	.0	.0
15	18.5	16.0	17.0	8.0	7.0	7.5	6.0	6.0	6.0	1.0	.0	.5
16	18.0	15.0	16.5	9.0	8.0	8.5	6.0	6.0	6.0	.5	.0	.0
17	17.0	15.0	16.0	8.0	7.0	7.5	6.0	5.0	5.5	.5	.0	.0
18	16.5	15.0	16.0	7.5	6.5	7.0	5.0	4.0	4.5	.0	.0	.0
19	16.0	14.5	15.5	8.0	7.0	7.5	4.0	3.0	3.5	1.5	.0	.5
20	15.0	13.5	14.0	9.5	7.5	8.5	3.0	2.0	2.5	.5	.0	.0
21	15.0	12.5	13.5	10.5	9.5	10.0	2.0	1.0	1.5	.5	.0	.0
22	14.0	12.0	13.0	10.0	9.0	9.5	2.0	1.0	1.5	.0	.0	.0
23	13.0	12.5	13.0	10.0	9.5	9.5	1.5	1.0	1.0	.0	.0	.0
24	14.0	13.0	13.5	10.0	9.5	9.5	1.0	.0	.5	.0	.0	.0
25	13.0	12.5	12.5	10.0	7.5	9.0	.0	.0	.0	1.0	.0	.5
26	13.5	12.0	12.5	8.0	7.0	7.5	.0	.0	.0	2.5	1.0	2.0
27	12.5	11.0	12.0	7.5	7.0	7.5	.0	.0	.0	3.0	2.0	2.5
28	13.0	10.5	11.5	7.5	7.0	7.5	.0	.0	.0	2.5	1.5	2.0
29	13.0	11.0	12.0	7.5	7.0	7.5	.5	.5	.5	1.5	1.5	1.5
30	12.0	10.0	11.0	7.0	6.0	6.5	.5	.0	.0	2.0	1.0	1.5
31	11.5	9.0	10.0	---	---	---	.0	.0	.0	2.5	1.5	2.0
MONTH	23.0	9.0	16.0	11.5	6.0	8.5	7.0	.0	3.0	3.0	.0	1.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.5	.5	1.0	3.0	2.5	2.5	7.0	5.0	6.0	16.0	14.5	15.0
2	1.5	.0	.5	2.5	1.5	2.0	8.0	6.5	7.0	15.5	14.5	15.0
3	2.5	.0	1.5	2.5	1.5	2.0	9.5	7.5	8.5	15.0	14.0	14.5
4	2.0	1.5	2.0	3.0	1.5	2.0	9.0	8.5	8.5	14.0	13.5	13.5
5	2.5	2.0	2.0	2.5	2.5	2.5	9.0	8.5	9.0	14.0	12.5	13.5
6	3.0	2.0	2.0	3.5	2.5	3.0	8.5	6.5	7.5	13.5	13.0	13.0
7	2.0	1.0	1.5	4.5	3.0	4.0	6.5	6.5	6.5	13.0	12.5	13.0
8	1.5	.5	1.0	4.0	3.0	3.5	7.0	6.0	6.5	14.0	13.0	13.5
9	2.0	1.0	1.5	3.0	2.0	2.5	7.5	6.5	7.0	14.0	13.0	13.5
10	3.0	1.5	2.0	3.0	1.5	2.5	8.5	7.0	7.5	14.0	12.5	13.5
11	3.5	2.5	3.0	3.0	2.0	2.5	9.0	7.5	8.5	14.5	12.5	13.5
12	4.5	3.5	4.0	3.0	1.0	2.0	10.5	8.5	9.5	15.0	14.0	14.5
13	4.5	4.0	4.0	2.5	2.0	2.0	11.0	10.0	10.5	16.0	14.0	15.0
14	5.5	4.5	5.0	3.0	1.5	2.5	10.5	9.5	10.0	16.0	15.0	15.0
15	6.0	5.5	5.5	4.0	2.0	3.0	9.5	9.0	9.5	15.0	14.0	14.5
16	5.5	1.0	2.5	5.0	3.5	4.5	9.0	9.0	9.0	14.0	13.0	13.5
17	4.0	2.5	3.5	5.5	4.5	5.0	9.5	8.5	9.0	13.0	12.0	12.5
18	5.0	4.0	4.5	6.0	5.0	5.5	9.5	9.0	9.5	13.0	12.0	12.0
19	5.5	5.0	5.0	7.0	5.5	6.0	10.0	9.5	9.5	13.5	12.0	12.5
20	5.5	5.0	5.5	8.0	6.0	7.0	10.5	9.5	10.0	15.0	13.0	14.0
21	5.5	4.5	5.0	7.5	7.0	7.5	11.0	9.5	10.0	17.0	14.5	16.0
22	5.5	4.5	5.0	7.5	6.5	7.0	10.0	9.5	9.5	19.0	16.5	18.0
23	5.0	4.5	4.5	7.0	6.0	6.5	9.5	9.0	9.0	20.0	18.5	19.0
24	6.0	5.0	5.5	6.5	5.0	6.0	9.0	9.0	9.0	19.5	18.0	19.0
25	6.0	5.5	6.0	6.0	5.5	5.5	9.5	9.0	9.0	20.0	18.0	19.0
26	5.5	4.5	5.0	7.5	5.5	6.5	11.0	9.0	10.0	21.0	19.0	20.0
27	5.0	4.5	4.5	8.0	6.5	7.5	12.5	10.5	11.5	20.5	19.5	20.0
28	4.5	4.0	4.0	8.0	6.0	7.0	13.5	12.0	12.5	20.0	18.0	19.0
29	4.0	3.0	3.5	6.0	4.0	4.5	15.0	13.0	14.0	18.0	17.0	17.5
30	---	---	---	4.5	4.0	4.0	15.0	14.5	15.0	17.0	13.5	15.0
31	---	---	---	6.0	4.0	5.0	---	---	---	13.5	13.0	13.5
MONTH	6.0	.0	3.5	8.0	1.0	4.5	15.0	5.0	9.5	21.0	12.0	15.0

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	13.0	13.5	24.0	22.0	23.0	24.5	22.5	23.5	25.0	23.0	24.0
2	14.5	13.5	14.0	22.0	21.5	21.5	25.5	23.5	24.5	25.0	22.5	23.5
3	15.0	14.0	14.5	22.5	21.0	21.5	26.0	24.5	25.0	26.5	23.0	24.5
4	16.0	14.5	15.0	22.5	21.0	22.0	27.0	24.5	25.5	24.0	22.0	23.5
5	17.5	15.5	16.5	24.0	22.0	23.0	26.0	25.0	25.5	23.5	21.0	22.0
6	18.5	17.0	17.5	23.0	22.5	22.5	26.5	24.0	25.0	22.5	20.0	21.0
7	20.5	18.0	19.0	22.5	20.5	21.0	27.0	25.0	26.0	22.5	19.0	20.5
8	22.0	19.5	21.0	21.0	20.0	20.5	27.5	25.0	26.0	23.0	19.0	20.5
9	23.5	21.5	22.5	20.5	19.5	20.0	27.5	25.5	26.5	23.0	19.0	21.0
10	25.0	23.0	24.0	20.5	19.5	20.0	26.5	25.5	26.0	23.5	20.5	21.5
11	26.0	24.0	25.0	21.5	19.5	20.5	25.5	24.5	25.0	24.0	20.5	22.0
12	26.5	24.5	25.5	23.0	21.0	22.0	27.0	24.5	25.5	24.0	21.5	22.5
13	27.0	25.0	26.0	23.5	22.0	23.0	27.0	25.0	26.0	24.5	21.0	22.5
14	26.5	25.5	26.0	25.0	22.5	23.5	28.5	25.0	26.5	24.0	22.5	23.5
15	25.5	23.5	24.5	25.5	23.5	24.5	28.5	26.0	27.0	23.0	20.0	21.5
16	24.0	22.5	23.0	26.0	24.5	25.0	29.0	26.0	27.5	21.5	18.0	19.5
17	22.5	21.0	21.5	26.0	24.5	25.0	28.5	25.5	27.0	21.5	18.0	19.5
18	21.0	20.5	21.0	25.5	24.5	25.0	28.0	25.0	26.5	21.0	17.5	19.5
19	23.0	20.0	21.5	24.5	23.5	24.0	26.0	24.0	25.0	21.5	18.0	19.5
20	23.0	21.5	22.0	24.0	22.5	23.0	25.5	23.0	24.0	22.0	18.5	20.0
21	24.0	22.0	23.0	23.5	22.0	22.5	25.5	22.0	23.5	22.5	19.5	21.0
22	25.5	22.5	24.0	23.5	21.5	22.5	25.0	22.0	23.5	22.5	19.0	20.5
23	25.5	23.0	24.0	25.0	23.0	24.0	24.5	22.5	23.5	23.0	19.5	21.0
24	23.5	22.0	23.0	25.5	23.5	24.5	24.5	22.0	23.5	24.0	21.0	22.5
25	23.0	21.5	22.5	25.5	23.5	24.5	25.0	22.0	23.5	23.5	21.5	22.5
26	22.5	21.0	22.0	25.5	23.5	24.5	26.0	22.5	24.0	22.5	19.5	21.5
27	23.5	21.0	22.0	24.0	21.5	23.0	25.0	22.5	24.0	19.5	17.5	18.5
28	24.5	22.5	23.5	22.0	21.0	21.5	25.5	22.5	24.0	17.5	16.0	16.5
29	26.0	23.0	24.5	22.0	21.0	21.5	25.0	23.5	24.0	18.0	15.5	16.5
30	25.0	24.0	24.5	22.0	21.5	21.5	26.0	23.5	24.5	18.5	15.5	17.0
31	---	---	---	24.0	21.0	22.5	26.5	24.0	25.0	---	---	---
MONTH	27.0	13.0	21.5	26.0	19.5	22.5	29.0	22.0	25.0	26.5	15.5	21.0
YEAR	29.0	.0	12.5									

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	221	216	219	206	202	204	123	116	119	148	144	146
2	227	214	224	209	204	206	119	115	116	152	145	148
3	224	215	220	212	208	210	125	119	121	151	148	150
4	216	206	210	216	211	213	129	118	123	154	149	151
5	208	203	207	217	214	216	138	120	132	158	153	155
6	209	207	208	217	210	214	141	138	140	157	151	154
7	211	208	210	216	208	212	147	137	141	158	153	155
8	222	210	218	214	210	213	138	109	126	165	159	162
9	221	212	216	214	207	211	108	102	105	168	162	164
10	212	204	208	214	194	208	112	106	108	172	169	171
11	217	207	212	208	199	205	116	111	113	178	172	175
12	219	204	214	224	207	214	122	116	118	179	171	174
13	215	210	213	224	213	222	122	99	114	183	176	180
14	212	202	207	221	211	216	105	84	96	189	181	185
15	211	207	209	212	163	199	83	75	77	215	188	196
16	209	205	207	178	169	174	81	76	79	195	179	189
17	210	206	207	211	178	197	87	80	84	195	174	188
18	216	211	215	183	172	175	93	88	90	195	192	194
19	215	200	205	179	174	176	102	93	98	204	195	200
20	202	197	199	181	177	179	107	102	105	195	186	192
21	207	202	205	178	169	175	113	106	109	202	187	196
22	206	200	203	188	173	181	122	105	114	207	187	201
23	202	186	196	181	160	168	151	117	138	206	204	205
24	190	177	185	158	151	154	139	133	135	206	198	202
25	201	175	191	149	141	146	148	135	140	222	206	212
26	194	188	190	153	141	150	149	140	145	285	225	246
27	197	193	195	148	132	139	157	145	150	283	232	257
28	199	193	196	130	125	127	158	145	156	231	203	217
29	209	200	204	132	124	128	174	129	149	205	196	201
30	209	206	208	134	124	130	169	146	154	196	185	190
31	209	205	207	---	---	---	155	147	151	202	188	196
MONTH	227	175	207	224	124	185	174	75	121	285	144	186

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	211	203	207	142	137	139	152	138	143	145	138	141
2	221	210	217	142	139	140	156	142	150	143	137	140
3	219	216	217	145	141	144	155	150	153	139	137	138
4	226	186	203	151	145	148	152	146	149	144	121	136
5	208	193	201	155	149	152	145	96	115	137	109	121
6	192	185	187	166	155	160	116	76	86	108	105	106
7	194	185	189	172	164	169	85	76	80	113	108	110
8	195	192	194	165	163	164	88	85	86	120	115	117
9	193	179	185	163	160	162	91	85	88	128	120	125
10	181	177	179	170	161	165	103	88	95	127	124	125
11	185	179	181	179	169	173	121	102	111	123	120	122
12	190	182	186	181	172	176	130	120	126	129	122	124
13	192	183	188	205	174	183	130	120	125	133	129	130
14	183	180	182	218	146	162	129	120	125	138	134	136
15	181	152	164	184	144	163	132	128	130	134	130	132
16	150	84	106	187	178	183	134	131	133	131	124	127
17	84	82	83	184	176	181	133	123	128	126	124	125
18	90	83	87	184	177	182	122	111	118	129	125	127
19	95	90	93	178	172	174	110	102	105	134	129	131
20	106	97	101	176	171	174	121	101	112	140	133	137
21	106	104	105	174	168	172	133	120	126	148	139	142
22	108	103	105	167	159	163	148	132	141	151	148	149
23	115	108	111	162	139	149	152	132	144	150	139	146
24	125	116	121	138	132	134	130	121	124	150	140	144
25	131	126	129	135	130	133	125	120	122	149	140	145
26	126	120	123	139	135	137	126	123	124	140	136	139
27	127	125	126	140	139	140	127	123	125	145	137	140
28	137	129	131	142	137	139	131	126	128	147	141	145
29	141	132	135	146	134	140	134	130	131	144	109	134
30	---	---	---	154	141	146	144	135	141	118	71	89
31	---	---	---	155	148	150	---	---	---	75	72	74
MONTH	226	82	153	218	130	158	156	76	122	151	71	129

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	80	76	78	234	185	224	199	188	193	249	235	241
2	92	81	86	174	137	148	199	192	195	250	228	239
3	100	94	98	135	103	111	204	197	199	231	223	227
4	108	101	105	115	103	108	207	193	200	233	219	228
5	115	108	111	120	115	117	200	196	198	237	233	235
6	129	115	121	139	122	129	202	184	191	240	233	238
7	137	130	133	142	63	111	210	204	207	237	231	234
8	146	138	141	146	129	140	211	205	207	239	234	236
9	151	147	150	142	133	136	212	198	205	244	236	239
10	159	153	157	148	134	139	205	200	202	249	245	247
11	169	158	165	161	150	156	210	204	207	252	248	249
12	176	170	173	169	160	165	209	202	205	254	251	252
13	183	176	180	169	158	164	216	209	213	253	250	251
14	187	177	182	170	161	164	224	213	219	256	253	254
15	191	185	188	174	163	168	227	223	225	257	241	251
16	188	182	185	183	174	179	227	217	223	259	255	257
17	186	182	184	191	182	185	223	218	221	262	258	260
18	191	184	186	183	177	180	230	220	226	261	259	260
19	201	191	198	189	172	182	231	223	228	259	233	244
20	200	195	197	169	160	163	224	220	222	233	229	231
21	194	187	190	166	157	163	224	219	222	239	233	235
22	194	186	189	173	155	164	226	224	225	248	241	246
23	209	195	201	190	174	180	228	226	227	251	247	249
24	218	209	213	202	190	196	226	222	224	252	249	251
25	222	198	212	208	203	205	230	223	227	254	250	252
26	201	164	175	208	198	201	229	222	225	254	252	253
27	190	169	180	203	142	178	232	228	230	254	248	251
28	204	191	198	203	176	192	235	228	231	252	242	245
29	217	204	211	195	192	193	240	235	237	247	241	244
30	225	218	221	194	190	192	241	238	239	250	247	248
31	---	---	---	192	186	189	240	231	235	---	---	---
MONTH	225	76	167	234	63	165	241	184	216	262	219	245
YEAR	285	63	171									

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---	12.0	11.8	11.9	15.0	14.3	14.5
2				12.5	12.4	12.4	12.4	12.0	12.2	14.4	14.2	14.3
3				12.4	12.0	12.2	12.5	12.2	12.4	14.6	14.3	14.4
4				12.4	12.0	12.2	12.4	12.1	12.2	14.0	13.5	13.7
5				12.3	12.0	12.1	12.3	12.1	12.2	13.5	13.1	13.3
6				12.1	11.8	12.0	12.2	11.7	12.0	13.1	12.6	12.9
7				12.2	11.9	12.1	11.9	11.7	11.8	12.7	12.5	12.6
8				12.0	11.6	11.8	12.4	12.0	12.2	12.8	12.6	12.7
9				12.0	11.8	11.9	12.7	12.5	12.7	13.2	12.9	13.1
10				12.1	11.7	11.9	12.8	12.7	12.7	13.2	12.9	13.1
11				12.2	11.7	12.0	12.9	12.8	12.8	13.2	13.0	13.1
12				12.2	12.0	12.1	12.8	12.3	12.6	13.8	13.2	13.6
13				12.2	11.9	12.1	12.3	11.6	11.9	13.8	13.7	13.7
14				12.2	12.0	12.1	11.9	11.8	11.9	13.8	13.6	13.7
15				12.1	10.1	11.4	12.1	12.0	12.0	13.7	13.5	13.6
16				10.2	9.8	10.0	12.3	12.1	12.2	13.7	13.5	13.6
17				10.4	9.9	10.1	12.7	12.3	12.5	13.7	13.5	13.6
18				11.1	10.4	10.8	13.0	12.7	12.9	13.6	13.5	13.6
19				11.7	10.9	11.1	13.3	13.1	13.2	13.5	13.3	13.4
20				12.0	10.8	11.2	13.7	13.3	13.5	13.8	13.4	13.6
21				10.9	10.3	10.6	14.2	13.8	14.1	14.1	13.8	13.9
22				10.7	10.3	10.5	14.2	13.5	13.7	14.3	14.1	14.2
23				10.7	10.4	10.6	13.8	13.5	13.7	14.3	14.1	14.2
24				10.9	10.6	10.8	13.9	13.8	13.9	14.1	13.7	13.9
25				11.0	10.5	10.8	14.4	13.9	14.2	13.7	13.2	13.4
26				11.4	11.1	11.2	14.7	14.3	14.4	13.3	13.1	13.2
27				11.8	11.4	11.6	14.5	14.4	14.4	13.4	13.2	13.3
28				11.8	11.7	11.8	14.8	14.2	14.4	13.5	13.2	13.3
29				11.8	11.5	11.6	14.8	14.3	14.4	13.5	13.3	13.4
30				12.2	11.6	11.8	14.8	14.5	14.7	13.9	13.5	13.7
31				---	---	---	15.2	14.6	14.9	14.0	13.6	13.8
MONTH				12.5	9.8	11.5	15.2	11.6	13.1	15.0	12.5	13.6

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	14.3	13.8	14.0	12.8	12.4	12.7	14.1	12.5	13.2	10.6	9.2	9.7
2	14.6	14.0	14.3	13.2	12.8	13.0	14.4	12.5	13.4	11.1	9.3	10.1
3	14.6	13.9	14.2	13.3	13.0	13.2	---	---	---	10.5	9.4	9.9
4	13.8	13.3	13.5	13.5	13.2	13.3	---	---	---	9.7	9.4	9.5
5	13.2	12.9	13.0	13.2	12.8	13.0	---	---	---	9.8	9.4	9.7
6	13.1	12.8	13.0	12.9	12.7	12.8	---	---	---	10.1	9.9	10.0
7	13.7	13.0	13.4	13.0	12.7	12.8	---	---	---	10.3	10.1	10.2
8	14.2	13.5	13.8	13.1	12.6	12.8	---	---	---	10.2	9.9	10.0
9	14.3	13.7	14.0	13.4	12.7	13.1	---	---	---	10.1	9.8	9.9
10	14.3	13.7	13.9	13.8	13.1	13.4	---	---	---	10.3	9.9	10.1
11	13.8	13.2	13.5	13.8	13.2	13.5	---	---	---	10.4	9.7	10.1
12	13.5	12.7	13.1	14.2	13.3	13.7	---	---	---	9.7	9.3	9.6
13	13.1	12.6	12.8	13.8	13.3	13.5	---	---	---	10.1	9.3	9.6
14	12.9	12.4	12.6	13.4	13.1	13.2	---	---	---	10.1	9.2	9.6
15	12.4	12.0	12.2	13.6	13.2	13.4	---	---	---	10.8	9.7	10.2
16	13.0	12.1	12.8	13.4	12.9	13.1	---	---	---	11.1	10.0	10.5
17	13.0	12.6	12.8	13.2	12.5	12.8	---	---	---	11.6	10.2	10.9
18	12.6	12.4	12.5	13.4	12.5	12.9	---	---	---	11.3	10.4	10.8
19	12.4	12.2	12.3	13.6	12.5	13.0	---	---	---	11.8	10.2	10.8
20	12.2	12.1	12.1	13.9	12.4	13.1	---	---	---	11.9	10.1	10.8
21	12.2	12.1	12.1	12.6	11.7	12.1	---	---	---	10.0	8.6	9.3
22	12.4	12.1	12.3	12.8	11.8	12.3	---	---	---	9.3	8.5	8.8
23	12.4	12.2	12.3	12.8	11.9	12.4	---	---	---	9.4	8.2	8.6
24	12.2	11.8	12.0	13.6	12.4	13.0	---	---	---	9.9	8.3	9.0
25	11.8	11.7	11.8	13.1	12.4	12.8	10.5	10.3	10.4	10.1	8.7	9.3
26	12.2	11.7	12.0	14.3	12.3	13.3	10.7	10.3	10.5	10.3	8.7	9.4
27	12.5	12.1	12.3	14.5	12.4	13.4	10.5	10.0	10.4	9.0	8.5	8.7
28	12.3	12.1	12.2	12.7	12.0	12.3	10.4	9.8	10.1	8.9	8.5	[illegible]
29	12.4	12.1	12.3	12.5	12.0	12.2	10.4	9.7	9.9	9.1	8.8	9.0
30	---	---	---	13.3	12.5	12.8	9.9	9.2	9.5	10.0	9.2	9.6
31	---	---	---	13.9	12.2	13.0	---	---	---	10.3	10.1	10.2
MONTH	14.6	11.7	12.9	14.5	11.7	13.0	14.4	9.2	10.9	11.9	8.2	9.8

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

OXYGEN, DISSOLVED (DO), MG/L, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	10.3	10.3	10.3	8.2	7.3	7.7	10.9	8.2	9.4	10.4	7.0	8.6
2	10.3	10.1	10.2	7.6	7.4	7.5	11.4	7.9	9.4	10.6	7.3	8.7
3	10.2	10.1	10.2	7.8	7.4	7.6	11.6	7.7	9.4	10.9	7.3	8.8
4	10.2	10.0	10.1	7.6	7.5	7.5	12.1	7.4	9.5	8.4	7.0	7.6
5	9.9	9.4	9.8	8.1	7.5	7.8	---	---	---	9.8	7.4	8.4
6	9.8	9.4	9.5	7.6	7.2	7.4	---	---	---	9.9	7.8	8.7
7	9.8	9.3	9.5	7.5	7.2	7.5	---	---	---	10.8	8.0	9.2
8	10.0	9.0	9.4	7.9	7.6	7.8	---	---	---	11.1	8.4	9.5
9	10.5	8.7	9.5	8.2	8.0	8.1	---	---	---	11.2	8.3	9.6
10	11.3	8.4	9.7	8.3	8.1	8.2	---	---	---	11.1	8.2	9.3
11	12.1	8.3	10.0	8.4	8.0	8.2	---	---	---	11.1	8.0	9.3
12	12.8	8.3	10.4	8.1	7.8	8.0	---	---	---	10.9	7.9	9.1
13	13.6	8.3	10.7	8.0	7.7	7.9	---	---	---	10.9	7.5	8.9
14	12.4	7.9	10.0	8.5	7.8	8.1	---	---	---	9.7	7.2	8.2
15	11.2	8.1	9.6	9.0	7.7	8.3	---	---	---	8.1	6.7	7.4
16	10.8	7.8	9.2	9.3	7.8	8.4	---	---	---	9.8	7.3	8.4
17	8.9	7.8	8.3	8.4	7.6	8.0	11.6	6.9	9.1	10.3	7.8	8.9
18	9.0	7.6	8.3	8.1	7.3	7.6	11.6	7.1	9.2	10.9	8.0	9.3
19	10.0	7.7	8.8	7.6	7.4	7.5	10.1	7.3	8.5	11.2	8.1	9.4
20	10.5	7.8	9.1	8.2	7.5	7.8	10.7	7.2	8.9	11.4	8.0	9.4
21	11.5	8.0	9.7	8.0	7.7	7.8	10.8	7.7	9.1	11.3	7.8	9.3
22	12.7	7.9	10.1	8.3	7.8	8.0	11.0	7.8	9.2	11.7	7.9	9.5
23	13.1	7.9	10.2	9.2	7.9	8.4	10.0	7.8	8.7	12.0	7.9	9.6
24	11.8	7.7	9.3	9.8	7.9	8.7	10.4	7.7	8.9	11.3	7.7	9.1
25	8.5	7.0	7.5	10.2	8.0	9.0	10.2	7.6	8.9	10.9	7.3	8.8
26	7.2	7.0	7.1	10.9	8.2	9.4	10.7	7.6	9.0	---	---	---
27	8.4	7.2	7.7	8.8	7.7	8.1	10.8	7.7	9.1	---	---	---
28	10.2	7.5	8.7	8.3	7.7	8.0	11.4	7.8	9.4	---	---	---
29	11.5	7.6	9.4	9.2	8.2	8.7	10.8	7.8	9.1	---	---	---
30	10.6	7.4	8.8	9.6	8.4	8.9	10.6	7.6	8.7	---	---	---
31	---	---	---	10.8	8.6	9.5	10.5	6.9	8.5	---	---	---
MONTH	13.6	7.0	9.4	10.9	7.2	8.1	12.1	6.9	9.1	12.0	6.7	8.9
YEAR	15.2	6.7	11.0									

PH (STANDARD UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	8.5	8.0	8.2	8.8	7.7	8.2	8.1	8.1	8.1	8.2	7.9	8.0
2	8.9	7.9	8.3	8.7	7.5	8.0	8.1	8.1	8.1	8.1	7.8	8.0
3	9.2	8.0	8.5	8.3	7.3	7.6	8.2	8.1	8.1	8.0	7.9	7.9
4	9.3	8.0	8.5	8.5	7.2	7.8	8.2	8.0	8.1	8.0	7.9	7.9
5	9.3	8.0	8.5	8.8	7.6	8.1	8.1	8.0	8.1	8.0	7.9	7.9
6	9.3	7.9	8.5	8.8	7.6	8.1	8.2	8.1	8.1	7.9	7.9	7.9
7	9.3	8.0	8.6	8.9	7.6	8.1	8.2	8.1	8.1	8.0	7.9	8.0
8	9.4	8.0	8.8	9.1	7.6	8.2	8.1	8.0	8.1	8.0	8.0	8.0
9	9.4	8.3	8.8	9.1	7.5	8.2	7.9	7.9	7.9	8.0	8.0	8.0
10	9.2	8.1	8.6	8.3	7.4	7.8	7.9	7.9	7.9	8.1	8.0	8.1
11	8.6	8.0	8.2	8.1	7.4	7.6	8.0	7.9	8.0	8.1	8.1	8.1
12	8.3	7.9	8.1	8.2	7.5	7.8	8.0	7.9	8.0	8.2	8.1	8.2
13	8.6	7.8	8.1	8.4	7.7	7.9	7.9	7.7	7.8	8.3	8.1	8.1
14	8.8	7.8	8.2	8.1	7.7	7.8	7.8	7.5	7.6	8.2	8.1	8.1
15	9.0	7.9	8.4	8.0	7.6	7.8	7.5	7.3	7.4	8.2	8.1	8.2
16	9.1	7.9	8.4	7.7	7.4	7.6	7.4	7.3	7.4	8.2	8.2	8.2
17	9.1	8.0	8.5	7.9	7.6	7.8	7.4	7.3	7.3	8.3	8.1	8.2
18	9.2	7.9	8.5	8.0	7.7	7.9	7.4	7.3	7.4	8.2	8.1	8.2
19	9.0	7.9	8.3	8.2	7.9	8.0	7.5	7.4	7.4	8.3	8.2	8.2
20	9.0	7.8	8.3	8.5	8.0	8.2	7.6	7.5	7.5	8.5	8.2	8.3
21	9.0	7.8	8.3	8.3	8.0	8.1	7.8	7.6	7.7	8.5	8.2	8.3
22	9.1	7.9	8.4	8.3	8.1	8.2	7.8	7.5	7.7	8.3	8.2	8.3
23	8.5	7.9	8.1	8.3	8.2	8.3	7.8	7.6	7.8	8.3	8.2	8.3
24	7.9	7.6	7.7	8.3	8.3	8.3	8.1	7.7	7.8	8.3	8.2	8.3
25	7.7	7.6	7.6	8.4	8.3	8.4	8.5	7.8	7.9	8.3	8.3	8.3
26	8.0	7.6	7.7	8.5	8.4	8.4	7.9	7.8	7.9	8.3	8.3	8.3
27	8.3	7.7	7.9	8.5	8.4	8.5	8.1	7.9	8.0	8.3	8.2	8.2
28	8.6	7.4	8.0	8.5	8.3	8.4	8.5	7.9	8.0	8.2	8.2	8.2
29	8.6	7.7	8.1	8.4	8.1	8.2	7.9	7.8	7.8	8.2	8.2	8.2
30	8.8	7.7	8.1	8.1	8.0	8.1	8.0	7.8	7.9	8.4	8.2	8.3
31	8.9	7.8	8.2	---	---	---	8.3	7.6	8.0	8.5	8.3	8.4
MONTH	9.4	7.4	8.3	9.1	7.2	8.1	8.5	7.3	7.8	8.5	7.8	8.2

01463500 DELAWARE RIVER AT TRENTON, NJ--Continued

PH (STANDARD UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	8.4	8.3	8.4	8.5	8.4	8.4	8.9	8.1	8.5	8.3	7.5	7.9
2	8.5	8.3	8.4	8.5	8.4	8.5	9.0	8.2	8.6	8.6	7.7	8.1
3	8.5	8.3	8.4	8.5	8.4	8.5	9.3	8.3	8.8	8.2	7.8	7.9
4	8.3	8.1	8.2	8.5	8.4	8.5	8.8	8.2	8.4	7.8	7.5	7.7
5	8.1	8.1	8.1	8.5	8.4	8.4	8.2	7.8	7.9	7.7	7.5	7.6
6	8.1	8.0	8.1	8.5	8.3	8.4	8.0	7.6	7.7	7.6	7.5	7.5
7	8.3	8.1	8.2	8.6	8.4	8.5	7.7	7.6	7.6	7.7	7.5	7.6
8	8.4	8.3	8.3	8.6	8.5	8.5	7.8	7.7	7.8	7.7	7.6	7.6
9	8.4	8.2	8.3	8.6	8.4	8.5	7.8	7.8	7.8	7.7	7.6	7.7
10	8.4	8.2	8.3	8.6	8.4	8.5	7.9	7.8	7.9	7.8	7.7	7.7
11	8.4	8.2	8.3	8.7	8.5	8.6	7.9	7.9	7.9	7.8	7.6	7.7
12	8.4	8.2	8.2	8.7	8.5	8.6	8.0	7.9	8.0	7.7	7.6	7.6
13	8.2	8.1	8.2	8.6	8.4	8.5	8.1	8.0	8.1	7.9	7.6	7.7
14	8.3	8.1	8.2	8.4	8.1	8.2	8.1	8.0	8.1	8.0	7.7	7.8
15	8.2	7.9	8.0	8.4	8.1	8.3	8.1	8.1	8.1	8.2	7.8	8.0
16	8.0	7.4	7.6	8.5	8.3	8.4	8.1	8.0	8.1	7.9	7.8	7.8
17	7.5	7.4	7.4	8.6	8.4	8.5	8.0	7.8	7.9	8.5	7.8	8.1
18	7.6	7.5	7.5	8.8	8.4	8.6	7.8	7.6	7.7	8.2	7.8	8.0
19	7.7	7.6	7.6	9.1	8.4	8.7	7.6	7.6	7.6	8.7	7.8	8.1
20	7.8	7.7	7.7	9.3	8.6	8.9	7.7	7.6	7.7	8.8	7.9	8.3
21	7.8	7.8	7.8	8.9	8.3	8.6	7.7	7.6	7.7	8.1	7.7	7.9
22	7.8	7.8	7.8	8.7	8.3	8.5	7.6	7.5	7.5	8.0	7.8	7.9
23	7.9	7.8	7.9	8.5	8.2	8.4	7.5	7.5	7.5	8.1	7.9	7.9
24	8.0	8.0	8.0	8.9	8.2	8.5	7.7	7.5	7.6	8.3	7.9	8.1
25	8.1	8.1	8.1	8.5	8.1	8.3	7.7	7.6	7.7	8.4	8.0	8.1
26	8.2	8.2	8.2	9.4	8.2	8.8	7.9	7.7	7.8	8.6	8.0	8.2
27	8.3	8.3	8.3	9.6	8.4	9.1	7.9	7.7	7.8	8.1	8.0	8.0
28	8.4	8.3	8.4	9.1	8.2	8.5	7.9	7.7	7.8	8.2	8.1	8.1
29	8.4	8.4	8.4	8.2	7.9	8.0	7.9	7.7	7.8	8.1	7.7	8.0
30	---	---	---	8.4	8.1	8.2	7.9	7.6	7.7	7.9	7.3	7.6
31	---	---	---	9.0	8.1	8.5	---	---	---	7.4	7.3	7.3
MONTH	8.5	7.4	8.1	9.6	7.9	8.5	9.3	7.5	7.9	8.8	7.3	7.9

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.3	7.2	7.3	8.4	7.8	8.1	9.2	8.3	8.7	9.0	8.0	8.5
2	7.3	7.2	7.2	7.7	7.5	7.6	9.3	8.3	8.8	9.1	8.1	8.5
3	7.3	7.2	7.3	7.7	7.5	7.5	9.3	8.3	8.8	9.2	8.1	8.6
4	7.4	7.2	7.2	7.6	7.4	7.5	9.4	8.3	8.9	8.6	8.0	8.2
5	7.3	7.3	7.3	7.9	7.5	7.7	9.0	8.2	8.6	8.8	7.9	8.3
6	7.5	7.2	7.3	7.7	7.5	7.6	9.0	7.8	8.3	8.9	8.1	8.4
7	7.5	7.4	7.5	7.7	6.9	7.4	9.2	8.1	8.7	9.0	8.1	8.5
8	8.5	7.5	8.0	7.6	7.5	7.6	9.2	8.2	8.8	9.1	8.1	8.6
9	9.1	8.2	8.6	7.6	7.6	7.6	9.2	8.1	8.7	9.2	8.1	8.6
10	9.5	8.3	8.9	7.7	7.6	7.6	8.9	8.1	8.5	9.1	8.1	8.6
11	9.5	8.5	9.0	7.8	7.6	7.7	8.7	7.8	8.2	9.1	8.0	8.5
12	9.9	8.6	9.2	7.8	7.7	7.7	8.9	7.8	8.3	9.0	8.1	8.5
13	9.9	8.7	9.4	7.8	7.6	7.7	9.0	7.8	8.3	9.1	8.1	8.6
14	9.3	8.4	8.8	8.0	7.7	7.8	9.0	7.9	8.5	8.9	8.1	8.5
15	9.4	8.7	9.1	8.4	7.7	8.0	9.1	8.0	8.6	8.3	7.9	8.1
16	9.4	9.0	9.2	8.6	8.0	8.2	9.1	8.1	8.7	8.7	7.9	8.2
17	9.0	8.4	8.8	8.3	8.0	8.1	9.2	8.1	8.7	8.8	8.0	8.4
18	8.7	8.2	8.4	8.2	7.9	8.0	9.1	8.2	8.7	9.0	8.0	8.5
19	9.0	8.1	8.6	8.1	7.8	7.9	8.9	8.2	8.6	9.1	8.1	8.6
20	9.2	8.2	8.7	8.0	7.7	7.9	9.0	7.9	8.5	9.2	8.1	8.7
21	9.4	8.5	9.0	7.9	7.7	7.8	9.0	8.1	8.6	9.3	8.2	8.7
22	9.6	8.8	9.2	8.0	7.7	7.8	9.1	8.1	8.6	9.3	8.2	8.8
23	9.7	8.9	9.3	8.5	7.9	8.1	8.9	8.2	8.5	9.3	8.3	8.8
24	9.6	8.7	9.2	8.8	8.1	8.4	9.0	8.1	8.5	9.2	8.2	8.7
25	8.6	7.8	8.2	9.0	8.2	8.6	8.9	8.0	8.5	9.2	8.0	8.6
26	7.9	7.8	7.8	9.2	8.4	8.8	9.1	8.0	8.5	8.9	8.0	8.3
27	8.2	7.8	7.9	8.7	7.6	8.1	9.1	8.0	8.6	8.9	7.9	8.4
28	9.0	8.0	8.4	8.0	7.8	7.9	9.2	8.1	8.7	8.5	7.9	8.2
29	9.3	8.1	8.7	8.3	7.9	8.1	9.1	8.1	8.6	8.9	7.8	8.2
30	9.2	8.3	8.7	8.6	8.1	8.3	9.1	8.0	8.5	9.1	7.9	8.4
31	---	---	---	9.1	8.2	8.6	9.1	8.0	8.5	---	---	---
MONTH	9.9	7.2	8.4	9.2	6.9	7.9	9.4	7.8	8.6	9.3	7.8	8.5
YEAR	9.9	6.9	8.2									

01464598 DELAWARE RIVER AT BURLINGTON, NJ

LOCATION.--Lat 40°04'42", long 74°52'28", Burlington County, Hydrologic Unit 02040201, on left bank at the intake canal of the Public Service Electric and Gas Company, 0.3 mi downstream from Burlington-Bristol Bridge, 1.4 mi downstream from Assiscunk Creek, and at mile 117.54.

DRAINAGE AREA.--7,160 mi².

TIDE ELEVATION DATA

PERIOD OF RECORD.--July 1964 to current year. March 1921 to July 1926, January 1931 to November 1939, August 1951 to June 1954, July 1957 to June 1964, in files of Philadelphia District Corps of Engineers.

REVISED RECORDS.--WDR NJ-76-1: 1973(m).

GAGE.--Water-stage recorder. Datum of gage is -12.90 ft National Geodetic Vertical Datum of 1929. Prior to May 20, 1971, water-stage recorder at site 0.7 mi upstream at same datum. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--Elevation records good. Summaries for months with short periods of no gage-height record have been estimated with little or no loss of accuracy unless otherwise noted. Some periods cannot be estimated and are noted by dash (--) lines. No gage-height or doubtful record on Oct. 1-3, Oct. 27 - Nov. 2, Nov. 9-12, Nov. 27 - Dec. 1, Dec. 5-7, Dec. 12-14, Dec. 26 - Jan. 4, Feb. 28 - Mar. 2.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.74 ft Oct. 25, 1980; minimum, -6.60 ft Feb. 26, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known, 10.8 ft Aug. 20, 1955, from high-water mark at site 1.4 mi upstream; minimum, -9.1 ft Dec. 31, 1962, at present site.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 8.13 ft May 31; minimum recorded, -6.04 ft Dec. 25.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.73	6.61	7.20	5.87	7.26	6.88	7.89	8.13	8.03	7.27	6.60	6.12
high tide	Date	25	15	4	6	17	21	6	31	1	7	26	30
Minimum	Elevation	--	-4.31	-6.04	-4.28	-4.23	-3.85	-2.39	-3.19	-3.02	-3.04	-3.07	-3.84
low tide	Date	--	13	25	21	1	12	22	16	15	25	31	26
Mean high tide		--	--	--	4.57	4.86	5.13	6.15	5.64	5.71	5.67	5.52	5.18
Mean water level		--	--	--	1.05	1.51	1.72	2.73	2.07	1.96	1.88	1.75	1.52
Mean low tide		--	--	--	-2.75	-2.16	-2.00	-0.99	-1.73	-2.11	-2.16	-2.34	-2.45

01465500 NESHAMINY CREEK NEAR LANGHORNE, PA

LOCATION.--Lat 40°10'26", long 74°57'26", Bucks County, Hydrologic Unit 02040201, on left bank at bridge on State Highway 213, 0.3 mi (0.5 km) downstream from Mill Creek, and 1.7 mi (2.7 km) west of Langhorne.

DRAINAGE AREA.--210 mi^2 (544 km^2).

PERIOD OF RECORD.--October 1934 to current year.

REVISED RECORDS.--WSP 1332: 1949. WSP 1432: 1936-37. WDR PA-83-1: 1982(P)

GAGE.--Water-stage recorder. Datum of gage is 40.57 ft (12.366 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good,except those for winter periods, and period of missing record, July 19 to Aug. 22, which are fair. Several observations of water temperature were made during the year. Some regulation at low flow by mills above station. Flow regulated by upstream reservoirs on Little Neshaminy Creek, Robin Run, Pine Run, North Branch Neshaminy Creek, and Core Creek (combined flood control capacity, about 9,560 acre-ft (11.8 hm^3). Occasional regulation by Springfield Lake, capacity, 650 mil gal (2.460 hm^3), completed in 1934; no significant regulation except during period May 1934 to January 1944, when the lake was filling, and in September 1949, July 1954, July through October 1957, September, October 1961. Interceptor sewer installed along left bank in May, June 1966.

AVERAGE DISCHARGE.--50 years, 294 ft^3/s (8.326 m^3/s), 19.02 in/yr (483 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,300 ft^3/s (1,400 m^3/s) Aug. 19, 1955, gage height, 22.84 ft (6.962 m), from floodmarks, from rating curve extended above 4,700 ft^3/s (133 m^3/s) on basis of contracted-opening measurement at gage height 15.94 ft (4.859 m), and slope-area measurement of peak flow; minimum, 1.9 ft^3/s (0.054 m^3/s) Sept. 8, 1957; minimum gage height, 0.35 ft (0.107 m) Sept. 1, 2, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 23, 1933, reached a stage of 17.3 ft (5.27 m), from floodmark, discharge, 30,000 ft^3/s (850 m^3/s), from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,300 ft^3/s (292 m^3/s) April 5, gage height, 10.93 ft (3.331 m); minimum daily, 25 ft^3/s (0.71 m^3/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	39	385	352	207	508	896	288	1190	141	130	65
2	30	38	296	306	561	432	685	249	747	331	120	56
3	30	39	282	295	471	368	570	234	551	176	115	56
4	28	44	1870	268	1570	314	510	1730	468	141	110	158
5	27	39	1700	272	959	349	6490	1120	395	134	140	168
6	26	38	708	285	525	892	3040	544	361	326	130	84
7	32	37	1240	259	434	573	1200	433	312	5000	120	64
8	29	35	581	230	317	419	807	502	263	1300	110	55
9	26	34	418	220	282	377	642	834	235	520	100	51
10	26	84	352	300	257	336	558	494	209	310	140	50
11	25	304	304	361	301	321	492	384	190	308	180	56
12	73	194	1100	310	488	298	412	330	178	510	150	53
13	189	114	5210	280	465	384	363	333	167	293	190	51
14	177	80	5120	260	434	3800	337	297	193	222	250	49
15	120	126	1390	230	2710	1980	367	269	182	169	200	88
16	55	1670	799	221	2360	1190	420	246	149	152	150	110
17	39	422	578	220	903	795	1200	225	143	145	130	68
18	33	211	474	205	649	598	900	209	251	179	110	55
19	48	148	416	200	537	521	650	206	287	200	100	51
20	107	119	354	190	470	467	415	205	206	340	95	49
21	61	505	285	185	401	442	369	252	154	640	90	47
22	41	355	2360	180	349	504	317	219	135	540	85	45
23	74	193	1780	175	321	407	355	210	122	400	92	43
24	904	161	699	261	1680	350	420	382	120	300	107	42
25	364	1410	1100	415	932	335	372	240	1190	210	79	41
26	152	1270	1170	646	721	354	308	192	447	145	66	41
27	93	427	1080	685	590	320	283	437	251	250	60	37
28	67	321	1730	620	1140	634	277	286	221	470	59	57
29	55	1430	2130	327	1060	4240	324	2370	179	520	57	68
30	43	624	571	253	---	2450	341	8420	139	300	57	59
31	40	---	400	242	---	1280	---	3000	---	170	57	---
TOTAL	3042	10511	36882	9253	22094	26238	24320	25140	9635	14842	3579	1917
MEAN	98.1	350	1190	298	762	846	811	811	321	479	115	63.9
MAX	904	1670	5210	685	2710	4240	6490	8420	1190	5000	250	168
MIN	25	34	282	175	207	298	277	192	120	134	57	37

CAL YR 1983 TOTAL 176227 MEAN 483 MAX 6000 MIN 22
WTR YR 1984 TOTAL 187453 MEAN 512 MAX 8420 MIN 25

01465798 POQUESSING CREEK AT GRANT AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°03'25", long 74°58'08", Philadelphia County, Hydrologic Unit 02040202, on right bank 600 ft (183 m) upstream from Delaware River Expressway and 3,000 ft (914 m) upstream from mouth in northeast Philadelphia.

DRAINAGE AREA.--21.4 mi² (55.4 km²).

PERIOD OF RECORD.--July 1965 to current year. Records for 1971-74 published in WDR PA-81-1.

GAGE.--Water-stage recorder and concrete low-water control. Datum of gage is 2.68 ft (0.817 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair, except periods of ice and missing record, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 34.3 ft³/s (0.971 m³/s), 21.74 in/yr (552 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,400 ft³/s (266 m³/s) July 28, 1982, gage height, 15.35 ft (4.679 m), from floodmark, from rating curve extended above 550 ft³/s (15.6 m³/s) on basis of slope-area measurement of peak flow; minimum, 1.1 ft³/s (0.031 m³/s) Aug. 9, 1966, gage height, 2.43 ft (0.741 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) revised and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 13	1915	1410	39.9	7.41	2.259	May 29	1915	2000	56.6	8.35	2.545
Dec. 22	1200	1230	34.8	7.09	2.161	July 7	1130	*5540	157	12.27	3.740
Dec. 28	1745	1260	35.7	7.14	2.176	July 27	0945	2130	60.3	8.54	2.603

Minimum daily discharge, 5.0 ft³/s (0.14 m³/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	6.4	11	18	15	21	29	19	54	20	15	24
2	8.0	6.4	12	17	14	19	30	18	36	15	15	26
3	5.6	6.4	40	18	29	18	28	25	30	12	14	56
4	5.4	9.8	110	18	103	17	50	98	24	10	15	54
5	12	6.4	21	19	25	63	367	26	20	29	145	14
6	8.2	6.4	90	18	19	52	76	19	19	147	25	12
7	5.0	6.4	52	16	16	24	37	18	19	900	16	11
8	5.1	6.6	19	15	14	21	28	148	18	300	14	11
9	5.3	7.0	16	14	14	27	27	73	18	98	13	11
10	5.6	98	15	21	14	20	26	22	18	17	13	11
11	6.2	32	13	28	17	22	28	19	17	38	13	12
12	68	9.5	165	15	19	19	25	41	15	46	75	12
13	13	7.6	541	15	16	268	25	23	17	16	26	11
14	48	7.2	101	14	24	276	23	20	31	14	13	11
15	6.0	130	33	14	241	47	55	17	14	13	11	63
16	5.6	40	24	13	63	32	159	16	12	13	11	14
17	5.4	11	21	13	33	27	47	15	27	13	10	10
18	5.8	10	19	12	27	25	34	15	42	67	9.5	9.7
19	26	9.5	18	12	20	24	27	17	96	16	15	9.7
20	7.4	9.2	17	12	19	23	24	15	15	12	10	9.7
21	5.8	72	16	11	16	35	20	17	13	144	8.8	9.5
22	5.6	11	340	11	15	24	19	14	14	37	8.7	9.8
23	96	10	43	12	47	22	46	101	11	15	10	9.7
24	186	40	22	53	137	23	27	26	38	13	9.3	9.4
25	14	80	19	80	24	35	23	14	119	12	8.6	9.5
26	8.4	15	16	62	19	29	20	43	14	11	9.4	10
27	7.2	12	17	49	17	20	19	47	12	467	8.3	9.3
28	6.7	32	297	27	188	211	18	115	12	44	11	56
29	6.4	12	53	17	35	396	37	488	17	20	15	16
30	6.4	11	22	16	---	63	20	470	50	17	23	11
31	6.4	---	19	26	---	34	---	130	---	16	23	---
TOTAL	607.3	720.8	2202	686	1240	1937	1394	2129	842	2592	613.6	542.3
MEAN	19.6	24.0	71.0	22.1	42.8	62.5	46.5	68.7	28.1	83.6	19.8	18.1
MAX	186	130	541	80	241	396	367	488	119	900	145	63
MIN	5.0	6.4	11	11	14	17	18	14	11	10	8.3	9.3
CFSM	.92	1.12	3.32	1.03	2.00	2.92	2.17	3.21	1.31	3.91	.93	.85
IN.	1.06	1.25	3.83	1.19	2.16	3.37	2.42	3.70	1.46	4.51	1.07	.94

CAL YR 1983 TOTAL 15044.6 MEAN 41.2 MAX 800 MIN 4.3 CFSM 1.93 IN. 26.15
WTR YR 1984 TOTAL 15506.0 MEAN 42.4 MAX 900 MIN 5.0 CFSM 1.98 IN. 26.95

01467048 PENNYPACK CREEK AT LOWER RHAWN STREET BRIDGE, PHILADELPHIA, PA

LOCATION.--Lat 40°03'00", long 75°01'59", Philadelphia County, Hydrologic Unit 02040202, on left bank at downstream side of footbridge pier, 400 ft (122 m) downstream from Lower Rhawn Street bridge, 0.8 mi (1.3 km) upstream from Wooden Bridge Run, in Philadelphia.

DRAINAGE AREA.--49.8 mi^2 (129 km^2).

PERIOD OF RECORD.--June 1965 to current year. Records for 1971-74 published in WDR PA-81-1.

REVISED RECORDS.--WDR PA-81-1: 1974.

GAGE.--Water-stage recorder. Datum of gage is 21.27 ft (6.483 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except for periods of missing and doubtful record which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 95.2 ft^3/s (2.696 m^3/s), 25.97 in/yr (660 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,770 ft^3/s (277 m^3/s) July 28, 1982, gage height, 13.15 ft (4.008 m), from rating curve extended above 3,900 ft^3/s (110 m^3/s) on basis of slope-area measurement of peak flow; minimum, 6.0 ft^3/s (0.17 m^3/s) Oct. 11, 1966, gage height, 1.97 ft (0.600 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft^3/s (48.1 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 16	0015	1840	52.1	5.69	1.734	May 29	2200	2190	62.0	6.16	1.878
Dec. 13	2100	2110	59.8	6.06	1.847	May 30	0930	2080	58.9	6.01	1.832
Dec. 22	1545	2190	62.0	6.16	1.878	July 7	0745	*3350	94.9	*7.61	2.320
Dec. 28	2100	1970	55.8	5.87	1.789	July 27	1145	1960	55.5	5.86	1.786
Apr. 5	0800	2310	65.4	6.33	1.929						

Minimum discharge, 14 ft^3/s (0.39 m^3/s) Oct. 10, gage height, 2.13 ft (0.649 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	30	59	88	54	120	132	72	156	77	45	26
2	26	30	54	82	57	110	120	71	124	50	44	24
3	21	31	75	76	69	96	113	82	106	43	43	174
4	20	48	582	74	261	84	138	428	98	40	43	49
5	28	31	121	73	92	80	1310	140	88	52	331	31
6	28	27	158	70	71	200	272	88	82	288	84	27
7	20	27	151	67	65	150	181	83	78	1530	48	25
8	18	28	75	64	58	110	152	329	74	123	43	25
9	18	27	69	61	58	94	139	115	70	69	41	24
10	17	185	65	69	59	86	129	75	65	61	41	47
11	19	185	61	89	64	78	119	73	63	97	42	30
12	308	50	442	72	72	74	115	190	61	207	203	28
13	66	38	1050	68	68	100	105	84	62	58	67	25
14	200	34	474	65	73	720	96	74	113	51	42	70
15	33	304	156	63	672	400	150	70	57	47	38	67
16	25	541	119	62	262	190	260	67	53	46	37	25
17	23	69	100	60	113	130	150	66	68	44	36	24
18	23	50	91	59	98	110	98	64	128	117	35	24
19	83	45	84	58	88	96	95	67	169	52	39	23
20	34	42	81	57	84	92	92	64	56	42	34	23
21	24	288	81	56	79	124	88	66	51	300	32	22
22	24	60	922	55	74	105	86	60	48	65	31	21
23	164	48	201	62	100	90	140	131	46	47	61	21
24	547	77	117	100	376	85	94	99	101	43	35	21
25	67	412	90	190	109	104	94	58	389	40	31	24
26	41	113	76	160	91	104	84	74	62	39	29	21
27	36	66	112	125	83	82	78	195	50	894	30	89
28	32	97	410	100	269	401	75	119	49	132	32	40
29	31	179	286	78	119	910	160	732	46	59	29	25
30	28	69	123	65	---	286	78	1250	90	52	30	92
31	28	---	105	86	---	159	---	327	---	50	30	---
TOTAL	2061	3231	6590	2454	3738	5570	4943	5413	2703	4815	1706	1167
MEAN	66.5	108	213	79.2	129	180	165	175	90.1	155	55.0	38.9
MAX	547	541	1050	190	672	910	1310	1250	389	1530	331	174
MIN	17	27	54	55	54	74	75	58	46	39	29	21
CFSM	1.34	2.17	4.28	1.59	2.59	3.61	3.31	3.51	1.81	3.11	1.10	.78
IN.	1.54	2.41	4.92	1.83	2.79	4.16	3.69	4.04	2.02	3.60	1.27	.87

CAL YR 1983 TOTAL 45721 MEAN 125 MAX 2060 MIN 16 CFSM 2.51 IN. 34.15
WTR YR 1984 TOTAL 44391 MEAN 121 MAX 1530 MIN 17 CFSM 2.43 IN. 33.16

01467060 DELAWARE RIVER AT PALMYRA, NJ

LOCATION.--Lat 40°01'05", long 75°02'16", Philadelphia County, PA, Hydrologic Unit 02040202, on right bank opposite Palmyra, 0.5 mi upstream from Tacony-Palmyra Bridge, 3.5 mi downstream from Rancocas Creek, and at mile 107.55.

DRAINAGE AREA.--7,850 mi².

TIDE ELEVATION DATA

PERIOD OF RECORD.--December 1962 to current year. Tidal volumes published from December 1962 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is -10.00 ft National Geodetic Vertical Datum of 1929. Gage-height record converted to elevation above or below (-) National Geodetic Vertical Datum of 1929 for publication.

REMARKS.--Elevation records good. Some periods of low tide are affected by sluggish or plugged intake and the record is estimated with negligible loss in accuracy. Some periods cannot be estimated and are noted by dash (--) lines. No gage-height or doubtful record on Dec. 26 - Jan. 4, Jan. 21-25, Feb. 1-2, July 15-16, Sept. 17-19.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.23 ft Oct. 25, 1980; minimum, -8.6 ft Dec. 31, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum elevation known since 1899, 8.9 ft Aug. 24, 1933, from profile furnished by Corps of Engineers, U.S. Army.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 7.48 ft Apr. 6; minimum recorded, -4.17 ft Dec. 25.

Summaries of tide elevations during current year are as follows:

TIDE ELEVATIONS, IN FEET, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
Maximum	Elevation	6.13	6.68	7.02	6.30	6.74	6.30	7.48	7.37	7.35	6.37	5.97	5.56
high tide	Date	25	15	22	17	17	29	6	31	1	7	26	30
Minimum	Elevation	-3.67	-3.61	-4.17	--	-3.58	-3.72	-2.43	-3.05	-2.75	-2.83	-2.83	-3.62
low tide	Date	29	13	25	--	26	12	22	16	15	25	31	26
Mean high tide		4.71	4.61	--	--	4.44	4.45	5.59	5.04	5.13	5.00	4.89	4.60
Mean water level		1.63	1.47	--	--	1.38	1.37	2.40	1.79	1.76	1.65	1.58	1.41
Mean low tide		-1.80	-1.93	--	--	-1.95	-2.00	-1.04	-1.71	-1.94	-2.07	-2.14	-2.29

01467086 TACONY CREEK ABOVE ADAMS AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°02'33", long 75°06'47", Philadelphia County, Hydrologic Unit 02040203, on left bank 20 ft (6 m) upstream from dam, 120 ft (37 m) upstream from Adams Avenue Bridge in Philadelphia.

DRAINAGE AREA.--16.7 mi^2 (43.2 km^2).

PERIOD OF RECORD.--October 1965 to current year. Records for 1971-74 published in WDR PA-81-1. Published as Tacony Creek at County line, Philadelphia, June 1974 to September, 1979.

REVISED RECORDS.--WDR PA-76-1: 1974.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 61.11 ft (18.626 m) National Geodetic Vertical Datum of 1929. Prior to June 1972 recording gage at site 1,600 ft (490 m) upstream at same datum.

REMARKS.--Records good, except for periods of low discharge which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 27.7 ft^3/s (0.784 m^3/s), 22.66 in/yr (576 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,550 ft^3/s (129 m^3/s) Aug. 27, 1967, gage height, 13.19 ft (4.020 m), from rating curve extended above 350 ft^3/s (9.91 m^3/s) on basis of slope-area measurement at gage height 9.06 ft (2.761 m); minimum, 1.8 ft^3/s (0.051 m^3/s) Sept. 12, 1966, gage height, 2.82 ft (0.860 m), at upstream site.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,100 ft^3/s (31.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
July 7	0900	*3290	93.2	*10.74	3.274	July 27	0930	1130	32.0	6.07	1.850

Minimum discharge, 7.0 ft^3/s (0.20 m^3/s) Oct. 4, 5, 6, 7, 8, 9, Sept. 20, 24, gage height, 2.20 ft (0.671 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	9.4	16	24	16	23	37	26	38	33	14	9.7
2	12	9.1	16	24	16	21	35	26	34	15	13	9.7
3	8.2	9.8	24	23	30	21	34	36	32	15	13	52
4	7.6	19	130	23	60	21	55	90	30	14	13	27
5	15	8.8	25	22	22	50	259	30	29	42	121	11
6	9.4	9.0	53	21	20	34	57	27	28	44	22	9.7
7	7.3	9.6	30	21	19	23	48	26	26	581	16	9.0
8	7.4	10	23	21	18	22	44	105	25	200	19	8.8
9	7.7	9.8	22	19	19	25	42	42	25	60	14	8.9
10	8.0	69	21	28	18	22	40	29	24	17	39	23
11	8.7	31	20	26	21	24	39	28	22	21	16	11
12	83	14	111	19	20	21	38	58	21	19	83	8.9
13	19	11	197	18	17	137	36	29	23	15	19	8.8
14	59	11	58	18	21	100	35	26	30	12	15	9.3
15	8.9	140	35	17	164	40	49	25	20	12	14	38
16	7.9	64	31	16	43	35	98	24	19	11	13	9.3
17	7.9	16	28	16	27	33	45	23	33	18	13	8.8
18	8.3	15	26	16	26	31	37	23	35	34	13	8.8
19	31	14	25	15	23	30	34	24	69	14	16	8.8
20	8.2	13	23	15	23	29	33	21	20	13	13	8.6
21	8.1	82	21	14	22	39	32	22	19	94	12	8.5
22	8.5	16	202	14	21	28	31	20	17	18	12	8.2
23	78	14	38	13	49	26	53	57	16	14	17	8.4
24	111	34	30	35	80	26	34	23	60	14	12	7.9
25	16	93	27	49	26	39	34	20	47	13	11	11
26	12	23	25	35	24	29	30	41	17	12	11	8.2
27	11	17	23	31	23	26	28	28	16	204	11	8.0
28	11	41	190	21	54	120	27	53	16	29	11	37
29	10	33	40	18	26	163	61	172	15	17	11	11
30	9.7	17	29	17	---	51	28	211	23	15	10	8.8
31	9.7	---	27	22	---	40	---	70	---	15	9.9	---
TOTAL	619.5	862.5	1566	671	948	1329	1453	1435	829	1635	626.9	406.1
MEAN	20.0	28.7	50.5	21.6	32.7	42.9	48.4	46.3	27.6	52.7	20.2	13.5
MAX	111	140	202	49	164	163	259	211	69	581	121	52
MIN	7.3	8.8	16	13	16	21	27	20	15	11	9.9	7.9
CFSM	1.20	1.73	3.04	1.30	1.97	2.58	2.92	2.79	1.66	3.17	1.22	.81
IN.	1.39	1.93	3.51	1.50	2.12	2.98	3.26	3.22	1.86	3.66	1.40	.91

CAL YR 1983 TOTAL 12815.2 MEAN 35.1 MAX 391 MIN 6.1 CFSM 2.11 IN. 28.72
WTR YR 1984 TOTAL 12381.0 MEAN 33.8 MAX 581 MIN 7.3 CFSM 2.04 IN. 27.75

01467087 FRANKFORD CREEK AT CASTOR AVENUE, PHILADELPHIA, PA

LOCATION.--Lat 40°00'57", long 75°05'50", Philadelphia County, Hydrologic Unit 02040203, on left bank at upstream side of Castor Avenue bridge 2.8 mi (4.5 km) upstream from mouth in Northeast Philadelphia.

DRAINAGE AREA.--30.4 mi² (78.7 km²).

PERIOD OF RECORD.--July 1982 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6.58 ft (2.006 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft³/s (275 m³/s) July 7, 1984, gage height, 11.25 ft (3.429 m), from rating curve extended above 8,000 ft³/s (227 m³/s) on basis of slope-area measurement of peak flow; minimum, 4.2 ft³/s (0.12 m³/s) Sept. 9, 10, 11, 1983, gage height, 1.48 ft (0.451 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,000 ft³/s (85.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 13	2400	3370	95.4	6.54	1.993	July 7	0730	*9700	275	*11.25	3.429
Dec. 28	1730	3220	91.2	6.27	1.911	July 26	---	3470	98.3	6.50	1.981
May 29	1715	3000	85.0	6.06	1.847	Aug. 5	0630	4280	121	7.23	2.204

Minimum discharge, 5.1 ft³/s (0.14 m³/s) Oct. 31, gage height, 1.50 ft (0.457 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	9.0	19	26	18	22	33	23	42	66	20	14
2	17	8.2	16	26	20	22	30	21	36	26	19	15
3	9.1	8.4	28	26	37	19	27	22	33	25	19	178
4	8.2	30	308	25	89	19	31	300	31	24	23	58
5	31	8.5	27	25	30	75	780	45	28	136	356	18
6	12	7.6	89	23	27	34	68	26	28	117	28	15
7	7.1	7.4	38	23	21	20	55	24	25	1000	80	15
8	6.6	7.4	21	22	20	18	47	243	25	77	24	14
9	6.6	7.4	19	22	21	22	46	30	23	37	18	16
10	6.6	163	19	33	19	19	42	25	22	30	138	30
11	6.6	37	18	32	21	23	42	22	20	41	36	26
12	190	8.5	250	19	20	17	44	70	18	35	135	17
13	60	6.0	392	18	17	405	41	35	16	21	35	16
14	152	5.8	74	17	40	128	38	32	22	20	24	18
15	11	429	36	16	328	40	71	30	16	17	20	88
16	7.4	94	31	16	19	35	168	30	14	23	17	17
17	6.6	20	28	15	18	29	46	30	14	25	16	14
18	6.1	17	26	15	18	28	49	30	21	34	17	12
19	51	14	25	14	17	28	33	32	40	60	26	11
20	7.7	17	23	14	16	26	33	29	30	135	21	11
21	6.1	194	20	14	16	46	33	32	17	90	21	11
22	6.2	17	502	13	16	26	31	29	25	35	18	11
23	200	15	42	13	154	25	82	90	24	29	24	11
24	233	64	32	56	111	21	36	29	198	26	15	11
25	19	162	26	66	27	23	36	21	112	26	15	13
26	11	27	24	39	25	24	31	19	27	350	14	12
27	9.3	21	23	33	22	22	31	34	26	110	14	9.9
28	10	69	557	25	87	110	30	136	25	35	14	68
29	11	38	47	20	25	450	123	500	23	26	15	17
30	10	19	30	18	---	80	26	491	54	22	14	11
31	13	---	27	22	---	38	---	103	---	20	15	---
TOTAL	1145.2	1531.2	2817	746	1299	1894	2183	2583	1035	2718	1251	777.9
MEAN	36.9	51.0	90.9	24.1	44.8	61.1	72.8	83.3	34.5	87.7	40.4	25.9
MAX	233	429	557	66	328	450	780	500	198	1000	356	178
MIN	6.1	5.8	16	13	16	17	26	19	14	17	14	9.9
CFSM	1.21	1.68	2.99	.79	1.47	2.01	2.39	2.74	1.13	2.88	1.33	.85
IN.	1.40	1.87	3.45	.91	1.59	2.32	2.67	3.16	1.27	3.33	1.53	.95

CAL YR 1983 TOTAL 21612.4 MEAN 59.2 MAX 998 MIN 5.8 CFSM 1.95 IN. 26.45
WTR YR 1984 TOTAL 19980.3 MEAN 54.6 MAX 1000 MIN 5.8 CFSM 1.80 IN. 24.45

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA

LOCATION.--Lat 39°57'11", long 75°08'05", Philadelphia County, Hydrologic Unit 02040202, at center of river on a line 200 ft (61 m) upstream of bridge from the north side of pier 12 north through channel station +14.3 to pierhead line on New Jersey side of river.

DRAINAGE AREA.--7,993 mi² (20,702 km²).

PERIOD OF RECORD.--August 1949 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1963 to current year.
pH: October 1967 to current year.
WATER TEMPERATURES: November 1960 to current year.
DISSOLVED OXYGEN: November 1960 to current year.

INSTRUMENTATION.--Water-quality monitor (39°57'10", 75°08'18") located at river end of pier 11 north about 100 ft (30 m) downstream from bridge since November 1960.

REMARKS.--Further information on this station is given in U.S. Geological Survey Water-Supply Paper 1809-O. Station not operated Dec. 2 to Mar. 29. Other interruptions in the record were due to malfunctions of the instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,450 micromhos Nov. 20, 1964; minimum, 65 micromhos Sept. 15, 1979.
pH: Maximum, 8.7 Oct. 14, 1979; minimum, 4.7 Dec. 29, 1978.
WATER TEMPERATURES: Maximum, 31.0°C, July 13-15, 1966; minimum, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 14.1 mg/L Dec. 14, 1962; minimum, 0.0 mg/L on many days each year.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	375	299	333	334	299	315	198	184	192			
2	369	309	337	336	300	318	189	185	188			
3	371	308	336	342	301	322	---	---	---			
4	367	305	337	339	299	320	---	---	---			
5	371	307	340	341	301	322	---	---	---			
6	376	312	343	341	302	324	---	---	---			
7	377	315	348	345	300	321	---	---	---			
8	391	317	354	344	298	321	---	---	---			
9	389	317	357	342	299	320	---	---	---			
10	408	317	360	356	298	321	---	---	---			
11	417	318	368	332	295	317	---	---	---			
12	---	---	---	313	275	294	---	---	---			
13	---	---	---	324	275	294	---	---	---			
14	374	302	338	323	287	304	---	---	---			
15	362	296	329	326	284	307	---	---	---			
16	381	306	337	325	272	290	---	---	---			
17	389	313	348	299	261	273	---	---	---			
18	390	318	350	274	263	269	---	---	---			
19	382	308	345	279	267	274	---	---	---			
20	397	320	357	279	265	273	---	---	---			
21	395	317	356	277	258	270	---	---	--			
22	390	317	356	271	245	263	---	---	---			
23	403	318	359	265	241	256	---	---	---			
24	381	294	339	263	242	255	---	---	---			
25	362	294	326	254	223	239	---	---	---			
26	345	292	319	229	216	222	---	---	---			
27	328	282	303	224	217	220	---	---	---			
28	325	281	302	229	213	222	---	---	---			
29	309	283	297	229	201	218	---	---	---			
30	339	288	305	212	191	199	---	---	---			
30	339	288	305	212	191	199	---	---	---			
31	334	294	314	---	---	---	---	---	---			
MONTH	417	281	338	356	191	282	198	184	190			

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	FEBRUARY MAX	FEBRUARY MIN	FEBRUARY MEAN	MARCH MAX	MARCH MIN	MARCH MEAN	APRIL MAX	APRIL MIN	APRIL MEAN	MAY MAX	MAY MIN	MAY MEAN
1				---	---	---	187	168	176	163	156	161
2				---	---	---	175	166	171	165	160	163
3				---	---	---	177	169	172	168	162	166
4				---	---	---	179	171	175	174	164	170
5				---	---	---	179	169	173	181	168	174
6				---	---	---	175	126	154	181	165	173
7				---	---	---	125	95	107	193	156	168
8				---	---	---	106	98	101	171	145	157
9				---	---	---	111	101	105	153	134	142
10				---	---	---	118	106	112	148	137	142
11				---	---	---	122	112	116	149	142	147
12				---	---	---	129	113	119	195	148	153
13				---	---	---	131	119	127	158	151	155
14				---	---	---	136	126	131	161	152	157
15				---	---	---	143	133	138	161	154	158
16				---	---	---	151	139	144	164	154	159
17				---	---	---	165	146	153	166	156	161
18				---	---	---	167	156	162	171	162	167
19				---	---	---	164	145	157	172	164	168
20				---	---	---	154	131	143	170	162	167
21				---	---	---	136	126	131	170	160	167
22				---	---	---	133	127	130	171	160	166
23				---	---	---	134	129	132	170	160	166
24				---	---	---	141	131	136	178	163	168
25				---	---	---	142	134	138	178	167	173
26				---	---	---	146	137	142	183	172	177
27				---	---	---	152	143	147	184	172	178
28				---	---	---	158	148	154	185	172	180
29				---	---	---	163	153	157	187	161	176
30				192	168	---	164	153	156	175	154	---
31				196	170	179	---	---	---	---	---	---
MONTH				---	---	---	187	95	142	195	142	157

DAY	JUNE MAX	JUNE MIN	JUNE MEAN	JULY MAX	JULY MIN	JULY MEAN	AUGUST MAX	AUGUST MIN	AUGUST MEAN	SEPTEMBER MAX	SEPTEMBER MIN	SEPTEMBER MEAN
1	103	89	---	243	233	241	220	213	217	281	269	277
2	110	99	104	244	228	238	224	217	220	285	271	278
3	127	104	110	236	222	227	231	219	223	285	272	278
4	119	109	---	237	225	230	230	222	226	286	267	275
5	---	---	---	238	202	226	231	220	226	286	272	279
6	---	---	---	219	168	200	231	218	224	288	274	281
7	---	---	---	198	139	161	233	220	227	291	277	284
8	140	136	138	150	136	145	236	220	228	295	278	287
9	147	138	143	148	128	138	237	220	230	297	279	287
10	155	143	148	152	137	143	241	222	233	297	282	290
11	158	149	---	160	144	151	241	223	232	297	286	293
12	---	---	---	165	152	159	244	224	235	299	286	294
13	---	---	---	170	160	165	244	224	233	304	290	298
14	179	174	---	179	166	171	247	227	239	316	294	305
15	185	177	181	183	172	177	253	232	241	311	292	303
16	---	---	---	185	178	---	248	230	240	309	289	301
17	---	---	---	---	---	---	249	234	242	310	290	303
18	---	---	---	---	---	---	250	234	244	314	293	305
19	---	---	---	200	193	196	251	236	245	323	296	310
20	---	---	---	205	195	201	252	238	245	322	297	309
21	---	---	---	205	197	201	255	237	247	322	297	311
22	224	219	222	205	199	203	257	240	248	324	300	314
23	228	222	225	210	203	207	258	242	250	353	299	316
24	231	225	228	214	208	211	262	246	253	351	300	326
25	231	222	227	219	209	214	261	257	259	337	307	324
26	231	222	226	241	210	220	---	---	---	337	306	325
27	233	227	230	230	197	216	---	---	---	340	305	323
28	235	230	233	224	195	208	---	---	---	344	313	330
29	239	233	236	219	195	206	---	---	---	346	312	330
30	242	235	239	215	187	207	---	---	---	348	309	332
31	---	---	---	217	205	212	278	267	274	---	---	---
MONTH	242	89	140	244	128	195	278	200	238	353	267	302

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1983 TO OCTOBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.5	6.4	6.5	6.7	6.6	6.6	6.7	6.6	6.7			
2	6.5	6.4	6.5	6.7	6.5	6.6	6.7	6.7	6.7			
3	6.5	6.4	6.5	6.6	6.5	6.6	---	---	---			
4	6.5	6.4	6.5	6.6	6.5	6.6	---	---	---			
5	6.5	6.4	6.5	6.6	6.5	6.6	---	---	---			
6	6.5	6.4	6.5	6.6	6.5	6.6	---	---	---			
7	6.5	6.4	6.5	6.6	6.6	6.6	---	---	---			
8	6.5	6.4	6.5	6.6	6.6	6.6	---	---	---			
9	6.5	6.4	6.5	6.6	6.6	6.6	---	---	---			
10	6.5	6.4	6.5	6.6	6.6	6.6	---	---	---			
11	6.5	6.4	6.5	6.6	6.6	6.6	---	---	---			
12	---	---	---	6.7	6.6	6.6	---	---	---			
13	---	---	---	6.7	6.6	6.7	---	---	---			
14	6.5	6.5	6.5	6.7	6.6	6.7	---	---	---			
15	6.5	6.5	6.5	6.7	6.6	6.7	---	---	---			
16	6.5	6.5	6.5	6.7	6.6	6.7	---	---	---			
17	6.5	6.5	6.5	6.8	6.7	6.7	---	---	---			
18	6.5	6.5	6.5	6.9	6.7	6.8	---	---	---			
19	6.5	6.5	6.5	6.8	6.7	6.8	---	---	---			
20	6.5	6.5	6.5	6.8	6.7	6.7	---	---	---			
21	6.5	6.5	6.5	6.8	6.7	6.8	---	---	---			
22	6.6	6.5	6.5	6.8	6.7	6.8	---	---	---			
23	6.6	6.5	6.5	6.8	6.7	6.7	---	---	---			
24	6.6	6.5	6.5	6.7	6.7	6.7	---	---	---			
25	6.6	6.5	6.5	6.7	6.7	6.7	---	---	---			
26	6.6	6.5	6.5	6.8	6.7	6.7	---	---	---			
27	6.7	6.5	6.6	6.8	6.7	6.7	---	---	---			
28	6.7	6.5	6.6	6.7	6.7	6.7	---	---	---			
29	6.7	6.6	6.7	6.7	6.7	6.7	---	---	---			
30	6.7	6.6	6.7	6.7	6.6	6.7	---	---	---			
31	6.7	6.6	6.6	---	---	---	---	---	---			
MONTH	6.7	6.4	6.5	6.9	6.5	6.7	---	---	---			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	6.7	6.7	6.7	6.8	6.8	6.8
2				---	---	---	6.8	6.6	6.7	6.8	6.7	6.8
3				---	---	---	6.8	6.6	6.7	6.8	6.7	6.8
4				---	---	---	6.8	6.7	6.7	6.8	6.8	6.8
5				---	---	---	6.9	6.7	6.8	7.0	6.8	6.9
6				---	---	---	6.9	6.7	6.8	6.9	6.8	6.9
7				---	---	---	6.7	6.4	6.5	6.8	6.7	6.8
8				---	---	---	6.4	6.4	6.4	6.7	6.6	6.7
9				---	---	---	6.5	6.4	6.5	6.6	6.5	6.5
10				---	---	---	6.5	6.4	6.5	6.5	6.5	6.5
11				---	---	---	6.5	6.5	6.5	6.5	6.5	6.5
12				---	---	---	6.5	6.4	6.5	6.5	6.5	6.5
13				---	---	---	6.7	6.4	6.6	6.5	6.5	6.5
14				---	---	---	6.8	6.7	6.7	6.5	6.5	6.5
15				---	---	---	6.8	6.7	6.7	6.5	6.5	6.5
16				---	---	---	6.8	6.7	6.7	6.6	6.5	6.5
17				---	---	---	6.8	6.7	6.8	6.5	6.5	6.5
18				---	---	---	6.9	6.8	6.8	7.0	6.8	6.9
19				---	---	---	6.9	6.8	6.8	7.0	6.8	6.9
20				---	---	---	6.8	6.7	6.7	7.0	6.9	6.9
21				---	---	---	6.7	6.6	6.6	6.9	6.9	6.9
22				---	---	---	6.7	6.6	6.6	7.0	6.8	6.9
23				---	---	---	6.7	6.6	6.6	6.9	6.8	6.9
24				---	---	---	6.6	6.6	6.6	6.9	6.8	6.8
25				---	---	---	6.6	6.6	6.6	7.1	6.8	6.9
26				---	---	---	6.6	6.6	6.6	7.1	6.9	6.9
27				---	---	---	6.9	6.6	6.8	7.1	6.9	6.9
28				---	---	---	6.9	6.8	6.8	7.0	6.8	6.9
29				---	---	---	6.9	6.8	6.8	6.9	6.8	6.9
30				6.8	6.7	---	6.9	6.8	6.8	7.0	6.8	---
31				6.7	6.7	6.7	---	---	---	---	---	---
MONTH				6.8	6.7	6.7	6.9	6.4	6.7	7.1	6.5	6.5

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1983 TO OCTOBER 1984

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	6.7	6.6	6.7	7.1	7.0	7.0	7.1	7.0	7.0	7.1	7.0	7.1
2	6.8	6.6	6.7	7.1	7.0	7.0	7.1	7.0	7.0	7.1	7.1	7.1
3	6.8	6.7	6.7	7.1	7.0	7.1	7.1	7.0	7.0	7.1	7.1	7.1
4	6.8	6.7	6.8	7.2	7.0	7.1	7.1	7.0	7.0	7.1	7.1	7.1
5	---	---	---	7.1	7.0	7.1	7.1	7.0	7.0	7.1	7.1	7.1
6	---	---	---	7.1	6.9	7.1	7.1	7.0	7.0	7.1	7.1	7.1
7	---	---	---	7.1	6.9	7.0	7.1	7.0	7.0	7.1	7.1	7.1
8	6.9	6.7	6.8	7.0	6.9	6.9	7.1	7.0	7.0	7.1	7.1	7.1
9	6.9	6.8	6.8	7.0	6.8	6.9	7.1	7.0	7.0	7.1	7.1	7.1
10	7.0	6.8	6.9	6.9	6.8	6.8	7.0	7.0	7.0	7.1	7.1	7.1
11	7.0	6.8	---	6.9	6.8	6.9	7.1	7.0	7.0	7.1	7.1	7.1
12	---	---	---	7.0	6.8	6.9	7.1	7.0	7.1	7.1	7.1	7.1
13	---	---	---	7.0	6.9	6.9	7.1	7.0	7.0	7.1	7.1	7.1
14	6.7	6.5	---	7.0	6.9	6.9	7.1	7.0	7.0	7.1	7.1	7.1
15	6.8	6.6	6.7	7.0	6.9	6.9	7.1	7.0	7.0	7.1	7.1	7.1
16	---	---	---	7.0	6.9	---	7.1	7.0	7.0	7.2	7.1	7.1
17	---	---	---	---	---	---	7.1	7.0	7.0	7.1	7.1	7.1
18	---	---	---	---	---	---	7.1	7.0	7.0	7.1	7.1	7.1
19	---	---	---	7.0	6.9	6.9	7.0	7.0	7.0	7.1	7.1	7.1
20	---	---	---	7.1	6.9	7.0	7.0	7.0	7.0	7.1	7.1	7.1
21	---	---	---	7.1	6.9	7.0	7.1	7.0	7.0	7.1	7.1	7.1
22	6.7	6.4	6.6	7.1	6.9	7.0	7.1	7.0	7.0	7.1	7.1	7.1
23	6.8	6.7	6.7	7.1	7.0	7.0	7.1	7.0	7.0	7.1	7.1	7.1
24	6.9	6.8	6.8	7.0	7.0	7.0	7.0	7.0	7.0	7.2	7.1	7.1
25	6.9	6.8	6.9	7.0	7.0	7.0	7.0	7.0	---	7.2	7.1	7.2
26	7.0	6.9	6.9	7.0	7.0	7.0	---	---	---	7.2	7.1	7.1
27	7.0	6.9	7.0	7.0	6.9	7.0	---	---	---	7.2	7.1	7.1
28	7.0	6.9	7.0	7.0	7.0	7.0	---	---	---	7.2	7.1	7.1
29	7.1	6.9	7.0	7.0	7.0	7.0	---	---	---	7.2	7.1	7.1
30	7.1	7.0	7.0	7.0	7.0	7.0	---	---	---	7.2	7.1	7.1
31	---	---	---	7.0	7.0	7.0	7.1	6.8	7.0	---	---	---
MONTH	7.1	6.4	6.8	7.2	6.8	7.0	7.1	6.8	7.0	7.2	7.0	7.1

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	20.5	20.0	20.5	14.0	13.5	14.0	9.0	8.5	8.5			
2	20.5	20.0	20.5	14.0	13.5	14.0	8.5	8.0	8.5			
3	20.5	20.0	20.5	14.0	14.0	14.0	---	---	---			
4	21.0	20.5	20.5	14.0	13.5	14.0	---	---	---			
5	21.0	20.5	20.5	13.5	13.0	13.5	---	---	---			
6	21.0	20.5	20.5	13.5	12.5	13.0	---	---	---			
7	20.5	20.5	20.5	13.0	12.5	13.0	---	---	---			
8	20.5	20.0	20.5	13.0	12.5	12.5	---	---	---			
9	20.5	20.0	20.0	13.0	12.5	12.5	---	---	---			
10	20.0	19.5	20.0	13.0	12.5	12.5	---	---	---			
11	19.5	19.5	19.5	13.0	12.5	13.0	---	---	---			
12	---	---	---	12.5	12.0	12.0	---	---	---			
13	---	---	---	12.0	11.5	11.5	---	---	---			
14	19.5	19.5	19.5	11.5	11.0	11.5	---	---	---			
15	19.5	19.0	19.0	11.5	11.0	11.0	---	---	---			
16	19.0	18.5	19.0	11.5	11.0	11.0	---	---	---			
17	19.0	18.5	18.5	11.0	10.0	10.5	---	---	---			
18	19.0	18.5	18.5	10.5	10.0	10.0	---	---	---			
19	18.5	18.0	18.5	10.0	10.0	10.0	---	---	---			
20	18.0	17.5	18.0	10.5	10.0	10.0	---	---	---			
21	17.5	17.0	17.5	10.5	10.5	10.5	---	---	---			
22	17.0	16.5	17.0	10.5	10.0	10.5	---	---	---			
23	17.0	16.5	16.5	10.5	10.0	10.5	---	---	---			
24	16.5	16.0	16.5	10.5	10.0	10.5	---	---	---			
25	16.5	16.0	16.0	10.5	9.5	10.0	---	---	---			
26	16.0	16.0	16.0	10.0	9.5	9.5	---	---	---			
27	16.0	15.5	15.5	10.0	9.5	10.0	---	---	---			
28	15.5	15.0	15.0	10.0	9.5	10.0	---	---	---			
29	15.0	14.5	15.0	10.0	9.5	10.0	---	---	---			
30	14.5	14.0	14.5	10.0	8.5	9.0	---	---	---			
31	14.5	14.0	14.0	---	---	---	---	---	---			
MONTH	21.0	14.0	18.0	14.0	8.5	11.5	---	---	---			

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1				---	---	---	7.0	6.5	6.5	15.0	13.5	14.0
2				---	---	---	7.0	6.0	6.5	15.5	14.0	15.0
3				---	---	---	7.5	6.5	7.0	15.5	14.5	15.0
4				---	---	---	8.0	7.0	7.5	16.5	15.0	15.5
5				---	---	---	10.0	8.0	9.0	17.0	16.0	16.5
6				---	---	---	10.5	9.0	10.0	16.5	16.0	16.5
7				---	---	---	9.0	7.5	8.5	16.0	15.5	15.5
8				---	---	---	8.0	7.5	7.5	15.5	15.5	15.5
9				---	---	---	8.0	7.5	8.0	15.5	15.0	15.5
10				---	---	---	8.5	8.0	8.5	15.5	15.0	15.0
11				---	---	---	9.0	8.5	9.0	16.0	15.0	15.5
12				---	---	---	9.5	9.0	9.5	16.0	15.5	15.5
13				---	---	---	10.0	9.0	10.0	16.5	16.0	16.0
14				---	---	---	10.5	10.0	10.0	16.5	16.0	16.0
15				---	---	---	11.0	10.0	10.5	16.5	16.0	16.0
16				---	---	---	11.5	10.5	11.0	16.5	16.0	16.0
17				---	---	---	12.0	11.5	11.5	16.5	15.5	16.0
18				---	---	---	12.0	11.5	12.0	16.0	16.0	16.0
19				---	---	---	12.0	12.0	12.0	16.0	16.0	16.0
20				---	---	---	12.0	11.5	12.0	16.5	13.0	16.0
21				---	---	---	12.5	12.0	12.0	17.0	16.0	16.5
22				---	---	---	12.5	12.0	12.0	17.5	16.5	17.0
23				---	---	---	12.0	12.0	12.0	18.0	17.0	17.5
24				---	---	---	12.0	12.0	12.0	18.5	17.5	18.0
25				---	---	---	12.0	11.5	12.0	19.5	18.0	19.0
26				---	---	---	12.0	11.5	12.0	21.0	19.0	20.0
27				---	---	---	12.5	11.5	12.0	21.5	20.0	20.5
28				---	---	---	12.5	12.0	12.5	21.5	20.5	21.0
29				---	---	---	13.5	12.5	13.0	21.5	20.5	21.0
30				7.0	7.0	7.0	14.5	13.0	13.5	21.0	20.0	---
31				7.0	6.5	7.0	---	---	---	---	---	---
MONTH				7.0	6.5	7.0	14.5	6.0	10.0	21.5	13.5	17.0

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	15.5	15.5	---	25.0	24.5	24.5	25.5	25.0	25.0	26.0	25.5	25.5
2	16.0	15.0	15.5	25.0	24.5	25.0	25.5	25.0	25.5	25.5	25.5	25.5
3	16.0	15.5	16.0	25.5	24.5	25.0	25.5	25.5	25.5	26.0	25.0	25.5
4	16.5	16.0	---	25.5	25.0	25.0	26.0	25.5	25.5	25.5	25.0	25.0
5	---	---	---	25.5	25.0	25.0	26.0	25.5	25.5	25.0	24.5	25.0
6	---	---	---	25.0	24.5	25.0	26.0	25.5	25.5	24.5	24.0	24.5
7	---	---	---	25.0	24.0	24.5	26.5	25.5	26.0	24.5	24.0	24.0
8	20.5	19.0	19.5	24.0	23.0	23.5	26.5	26.0	26.5	24.0	23.5	24.0
9	21.5	20.0	20.5	23.5	22.5	23.0	27.0	26.5	26.5	24.0	23.5	24.0
10	22.5	21.0	21.5	23.0	22.5	22.5	27.0	26.5	26.5	24.0	23.5	24.0
11	22.5	21.5	---	23.0	22.5	22.5	27.0	26.5	27.0	24.0	23.5	24.0
12	---	---	---	23.5	23.0	23.0	27.0	26.5	26.5	24.0	24.0	24.0
13	---	---	---	24.0	23.0	23.5	27.0	26.5	27.0	24.0	23.5	24.0
14	25.0	24.5	---	24.0	23.5	24.0	27.5	26.5	27.0	24.5	24.0	24.0
15	25.5	24.0	---	25.0	24.0	24.5	27.5	27.0	27.5	24.0	23.5	24.0
16	---	---	---	24.5	24.5	---	27.5	27.0	27.5	23.5	23.0	23.0
17	---	---	---	---	---	---	27.5	27.5	27.5	23.0	22.5	23.0
18	---	---	---	---	---	---	27.5	27.0	27.5	23.0	22.5	22.5
19	---	---	---	26.0	25.0	25.5	27.5	27.0	27.0	23.0	22.5	22.5
20	---	---	---	26.0	25.5	25.5	27.0	26.5	27.0	23.0	22.5	22.5
21	---	---	---	26.0	25.5	25.5	27.0	26.5	26.5	23.0	22.5	22.5
22	25.5	24.0	25.0	26.0	25.5	26.0	27.0	26.5	26.5	23.0	22.5	22.5
23	25.5	25.0	25.0	26.0	25.5	26.0	26.5	26.0	26.5	23.0	22.5	22.5
24	25.0	24.5	25.0	26.5	26.0	26.0	26.0	26.0	26.0	23.0	22.5	23.0
25	25.0	24.5	24.5	26.0	25.5	26.0	29.5	25.5	---	23.0	23.0	23.0
26	24.5	24.0	24.0	26.0	25.5	26.0	---	---	---	23.0	22.5	23.0
27	24.5	24.0	24.5	26.0	25.0	25.5	---	---	---	22.5	22.0	22.0
28	24.5	24.0	24.5	25.5	24.5	25.0	---	---	---	22.0	21.0	21.5
29	25.0	24.5	24.5	25.0	24.5	25.0	---	---	---	21.0	20.5	21.0
30	25.0	24.5	24.5	25.0	24.5	25.0	---	---	---	20.5	20.5	20.5
31	---	---	---	25.0	24.5	25.0	26.0	26.0	26.0	---	---	---
MONTH	25.5	15.0	23.0	26.5	22.5	24.5	29.5	25.0	26.5	26.0	20.5	23.5

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2.4	1.6	1.9	3.8	3.0	3.4	9.4	8.3	8.8			
2	1.9	1.3	1.5	3.5	2.6	3.0	9.2	8.8	---			
3	1.8	1.1	1.4	3.1	2.3	2.7	---	---	---			
4	1.7	1.0	1.3	2.9	2.2	2.4	---	---	---			
5	1.8	.9	1.2	2.8	2.2	2.3	---	---	---			
6	1.5	.8	1.2	3.0	2.1	2.4	---	---	---			
7	1.6	.9	1.2	3.0	2.3	2.6	---	---	---			
8	1.7	.9	1.3	3.3	2.4	2.6	---	---	---			
9	1.7	.9	1.3	3.2	2.2	2.5	---	---	---			
10	2.2	1.2	1.7	3.1	2.0	2.5	---	---	---			
11	2.3	1.4	1.8	3.2	2.0	2.3	---	---	---			
12	---	---	---	5.0	2.5	3.4	---	---	---			
13	---	---	---	5.2	3.4	4.0	---	---	---			
14	1.6	.9	1.3	4.7	3.3	3.8	---	---	---			
15	2.0	1.1	1.4	4.9	3.4	3.9	---	---	---			
16	1.9	1.2	1.5	5.2	3.7	4.3	---	---	---			
17	1.7	1.3	1.5	7.1	3.9	5.6	---	---	---			
18	1.4	1.0	1.2	7.1	5.7	6.4	---	---	---			
19	1.5	1.1	1.3	6.9	5.7	6.2	---	---	---			
20	1.9	1.1	1.4	6.9	5.5	6.0	---	---	---			
21	2.1	1.3	1.8	6.8	5.5	5.9	---	---	---			
22	2.2	1.5	1.9	7.2	5.7	6.2	---	---	---			
23	2.4	1.6	1.9	7.2	5.7	6.3	---	---	---			
24	2.7	1.8	2.0	6.8	5.5	5.9	---	---	---			
25	2.6	1.9	2.2	7.3	5.5	6.3	---	---	---			
26	2.8	1.9	2.2	8.0	6.8	7.4	---	---	---			
27	3.5	2.0	2.6	8.1	7.3	7.6	---	---	---			
28	3.9	2.4	3.0	8.2	7.4	7.7	---	---	---			
29	4.5	3.1	3.6	8.2	7.2	7.6	---	---	---			
30	4.5	3.5	3.8	8.8	7.6	8.3	---	---	---			
MONTH	4.5	.9	1.9	8.8	2.0	4.7	9.4	8.3	8.9			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---		13.2	12.3	11.7	8.9	8.2	8.4
2				---	---		13.5	12.2	11.7	8.5	7.7	8.0
3				---	---		13.8	12.2	11.9	8.3	7.2	7.6
4				---	---		13.4	12.1	11.7	8.0	7.0	7.3
5				---	---		13.2	12.0	11.5	8.3	7.0	7.7
6				---	---		12.7	11.6	11.1	8.5	2.2	6.1
7				---	---		12.7	11.8	11.3	3.2	1.9	2.5
8				---	---		12.8	12.2	11.6	5.4	3.2	3.9
9				---	---		13.2	12.4	11.8	5.7	4.1	4.9
10				---	---		13.0	11.9	11.6	6.2	5.1	5.6
11				---	---		12.9	11.6	11.3	6.0	4.2	5.0
12				---	---		12.5	11.3	10.9	5.8	4.1	4.8
13				---	---		11.5	10.0	10.4	5.6	4.5	5.0
14				---	---		10.8	9.9	10.2	6.1	4.2	5.0
15				---	---		10.2	9.7	9.9	4.8	3.4	4.0
16				---	---		10.0	9.4	9.6	5.7	4.6	5.1
17				---	---		9.9	8.9	9.3	4.5	3.1	3.5
18				---	---		10.0	9.0	9.4	4.3	2.9	3.6
19				---	---		10.2	9.2	9.6	5.7	3.7	4.5
20				---	---		10.4	9.5	9.8	5.4	4.4	4.8
21				---	---		10.1	9.2	9.7	5.0	4.2	4.7
22				---	---		10.2	9.3	9.7	5.8	4.1	4.9
23				---	---		9.9	9.0	9.4	5.1	4.1	4.6
24				---	---		9.7	9.0	9.4	4.4	3.8	4.1
25				---	---		9.7	9.1	9.4	4.8	3.7	4.2
26				---	---		9.7	8.9	9.2	5.3	4.2	4.6
27				---	---		9.8	8.7	9.3	4.4	2.5	3.3
28				---	---		9.8	8.7	9.2	3.1	2.5	2.7
29				---	---		9.6	8.6	9.0	3.6	2.6	3.2
30				13.4	8.1		9.4	8.4	8.9	3.2	2.0	---
31				13.5	12.6		---	---	---	---	---	---
MONTH				---	---	---	13.8	8.4	10.3	8.9	1.9	5.0

01467200 DELAWARE RIVER AT BENJAMIN FRANKLIN BRIDGE AT PHILADELPHIA, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	3.3	1.5	1.9	3.0	1.5	2.0	2.1	.8	1.4
2	---	---	---	3.5	1.3	2.3	2.8	1.5	1.9	2.5	.9	1.5
3	---	---	---	4.7	2.3	3.4	2.8	1.3	1.9	2.4	.9	1.6
4	---	---	---	5.4	3.0	4.1	2.7	1.2	1.9	2.0	.6	1.2
5	---	---	---	6.2	3.7	4.8	2.9	1.4	2.1	1.6	.4	.9
6	---	---	---	6.2	4.2	4.9	3.7	1.6	2.3	1.9	.6	1.0
7	---	---	---	7.0	4.6	5.8	3.7	1.9	2.5	2.0	.7	1.2
8	7.2	5.7	6.3	6.6	5.8	6.3	4.0	1.8	2.5	2.5	.8	1.4
9	7.0	5.1	5.9	6.2	5.1	5.7	4.0	1.8	2.5	2.4	1.0	1.6
10	7.0	4.8	5.8	5.5	4.5	5.0	3.3	1.3	2.2	2.3	1.1	1.6
11	6.3	4.0	---	5.7	4.3	4.7	3.3	1.1	2.1	1.6	.9	1.2
12	---	9.1	---	6.0	4.0	4.7	3.2	1.7	2.4	1.5	.6	1.0
13	---	8.8	---	5.5	4.2	4.7	3.2	1.6	2.2	1.4	.4	.8
14	---	2.3	---	5.4	3.8	4.5	3.1	1.5	2.0	1.3	.5	.8
15	5.6	1.6	3.2	5.5	3.8	4.4	2.4	1.1	1.6	1.2	.4	.7
16	---	---	---	5.1	3.7	---	2.3	1.0	1.5	1.9	.6	1.1
17	---	---	---	---	---	---	2.1	.9	1.4	2.2	.9	1.4
18	---	---	---	---	---	---	2.2	.9	1.4	2.0	.9	1.4
19	---	---	---	3.7	2.0	2.7	2.0	.9	1.3	2.0	.6	1.2
20	---	---	---	4.6	2.0	3.0	2.2	.7	1.4	2.1	.6	1.3
21	---	---	---	4.7	2.1	3.1	3.2	1.0	1.8	2.3	.9	1.3
22	1.7	.2	.5	4.6	2.0	3.2	4.0	.9	2.0	2.3	.9	1.4
23	1.7	.2	.7	4.2	2.3	3.1	3.6	1.2	2.1	2.9	1.1	1.7
24	2.1	.3	1.1	3.5	2.1	2.7	3.6	1.1	1.9	2.7	1.5	1.9
25	3.2	.7	1.4	3.0	1.8	2.3	1.5	1.4	---	2.3	1.3	1.6
26	4.1	1.0	2.6	2.7	1.6	2.0	---	---	---	2.3	1.0	1.4
27	4.6	1.8	2.7	3.5	1.6	2.3	---	---	---	2.6	1.3	1.8
28	4.3	2.0	3.0	3.5	1.8	2.3	---	---	---	2.3	1.6	1.8
29	3.8	2.1	2.6	3.8	1.7	2.4	---	---	---	2.2	1.5	1.8
30	3.1	1.8	2.3	3.6	1.8	2.4	---	---	---	2.6	1.5	2.0
31	---	---	---	3.1	1.6	2.1	2.3	.9	1.4	---	---	---
MONTH	11.6	.2	2.9	7.0	1.3	3.6	4.0	.7	1.9	2.9	.4	1.4

01468500 SCHUYLKILL RIVER AT LANDINGVILLE, PA

LOCATION.--Lat 40°37'45", long 76°07'30", Schuylkill County, Hydrologic Unit 02040203, on left bank 10 ft (3 m) upstream from highway bridge at Landingville, 0.1 mi (0.2 km) upstream from Mahannon Creek, and 5 mi (8.0 km) downstream from West Branch Schuylkill River.

DRAINAGE AREA.--133 mi² (344 km²)

PERIOD OF RECORD.--August 1947 to April 1953, October 1963 to September 1965, August 1973 to current year.

REVISED RECORDS.--WDR PA-75-1: 1973(P), 1974(P).

GAGE.--Water-stage recorder. Datum of gage is 470.64 ft (143.451 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 27, 1947, nonrecording gage 10 ft (3 m) downstream at same datum.

REMARKS.--Records good, except periods of ice effect which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years (water years 1948-52, 1964-65, 1975-84), 296 ft³/s (8.383 m³/s), 30.26 in/yr (769 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,570 ft³/s (243 m³/s) Nov. 25, 1950; maximum gage height, 13.60 ft (4.145 m) Apr. 16, 1983; minimum, 19 ft³/s (0.54 m³/s) Oct. 30, 31, Nov. 4, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1972 reached a stage of 17.36 ft (5.291 m), discharge, 14,000 ft³/s (396 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,300 ft³/s (36.8 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Dec. 13	2300	*3930	111	*11.02	3.359	May 4	0300	1930	54.7	7.52	2.292
Dec. 28	1930	1320	37.4	6.33	1.929	May 29	1145	3470	98.3	10.17	3.100
Feb. 14	2400	1870	53.0	7.40	2.256	June 30	0715	2870	81.3	9.19	2.801
Apr. 6	0100	2690	76.2	8.89	2.710	July 1	0945	1380	39.1	6.44	1.963

Minimum discharge, 57 ft³/s (1.61 m³/s) Oct. 8, 9, 10, gage height, 2.81 ft (0.856 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	81	457	322	154	424	455	568	921	1130	217	133
2	81	79	391	309	160	384	510	493	733	986	213	107
3	64	83	341	298	214	363	554	500	614	872	220	96
4	65	88	430	288	286	341	732	1390	524	685	199	99
5	64	77	391	281	223	350	2040	932	463	689	230	97
6	64	72	487	275	195	368	2170	732	425	749	199	93
7	61	72	639	269	183	346	1400	619	379	839	196	88
8	57	81	537	255	177	326	1020	666	342	637	180	79
9	57	81	460	242	171	312	817	605	315	547	177	74
10	62	118	391	216	159	282	688	518	288	494	289	82
11	62	188	334	208	239	276	596	493	277	541	287	88
12	104	145	1000	193	240	270	525	456	258	458	251	85
13	84	115	2650	192	250	285	486	399	257	381	230	84
14	124	107	2840	209	686	291	458	410	263	346	213	94
15	75	231	1540	201	1590	288	558	370	236	322	198	79
16	68	652	1130	180	1120	299	512	348	216	472	183	70
17	70	339	899	170	884	302	494	329	241	331	168	73
18	79	240	758	160	726	300	482	316	337	399	156	90
19	135	207	657	150	622	320	536	313	307	331	170	80
20	86	185	565	150	572	315	495	330	240	303	161	77
21	76	654	508	140	507	475	462	377	217	297	152	76
22	73	363	480	140	459	582	432	323	206	289	145	63
23	128	295	460	130	426	514	455	391	189	269	199	58
24	212	275	430	210	650	439	462	372	378	258	151	68
25	123	643	400	350	544	402	489	337	355	244	142	71
26	108	493	390	280	505	382	456	346	268	231	124	63
27	97	398	370	212	460	356	392	326	232	455	116	63
28	91	428	350	191	499	414	365	329	210	307	105	86
29	86	714	340	171	495	469	436	2650	195	267	111	62
30	82	559	330	169	---	428	476	1830	1460	250	109	58
31	81	---	330	164	---	420	---	1200	---	234	204	---
TOTAL	2689	8063	21285	6725	13396	11323	19953	19268	11346	14613	5695	2436
MEAN	86.7	269	687	217	462	365	665	622	378	471	184	81.2
MAX	212	714	2840	350	1590	582	2170	2650	1460	1130	289	133
MIN	57	72	330	130	154	270	365	313	189	231	105	58
CFSM	.65	2.02	5.17	1.63	3.47	2.74	5.00	4.68	2.84	3.54	1.38	.61
IN.	.75	2.26	5.95	1.88	3.75	3.17	5.58	5.39	3.17	4.09	1.59	.68

CAL YR 1983 TOTAL 122255 MEAN 335 MAX 4660 MIN 55 CFSM 2.52 IN. 34.19
WTR YR 1984 TOTAL 136792 MEAN 374 MAX 2840 MIN 57 CFSM 2.81 IN. 38.26

01469500 LITTLE SCHUYLKILL RIVER AT TAMAQUA, PA

LOCATION.--Lat 40°48'25", long 75°58'20", Schuylkill County, Hydrologic Unit 02040203, on left bank at pumping plant of Panther Valley Water Co., 0.6 mi (1.0 km) upstream from Tamaqua, and 0.8 mi (1.3 km) upstream from Panther Creek.

DRAINAGE AREA.--42.9 mi^2 (111.1 km^2).

PERIOD OF RECORD.--October 1919 to current year. Monthly discharge only for some periods, published in WSP 1302. June 1916 to September 1919, gage heights and discharge measurements only, in reports of Water Supply Commission of Pennsylvania.

REVISED RECORDS.--WSP 756: Drainage area. WSP 971: 1942. WSP 1302: 1922, 1926-30. WSP 1432: 1920-21, 1933.

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 817.48 ft (249.168 m) National Geodetic Vertical Datum of 1929. Prior to June 21, 1929, nonrecording gage at site 3,600 ft (1,100 m) downstream at datum 28.64 ft (8.729 m) lower.

REMARKS.--Records good. Flow regulated by Still Creek Reservoir (station 01469200) 6.5 mi (10.5 km) upstream. Figures of daily discharge do not include water diverted from reservoir. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--65 years, 93.4 ft^3/s (2.645 m^3/s), 29.58 in/yr (751 mm/yr), adjusted for diversion and, since February 1933, for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,790 ft^3/s (221 m^3/s) Aug. 18, 1955, gage height, 11.10 ft (3.383 m), from rating curve extended above 3,200 ft^3/s (91 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 1.8 ft^3/s (0.051 m^3/s) Dec. 18, 1931, gage height, 1.21 ft (0.369 m); minimum daily, 2.9 ft^3/s (0.082 m^3/s) Sept. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1650 ft^3/s (46.7 m^3/s) Apr. 5, gage height, 5.58 ft (1.701 m); minimum, 4.7 ft^3/s (0.13 m^3/s) Oct. 10, 11, gage height, 1.67 ft (0.509 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	12	175	82	34	119	108	115	334	495	58	27
2	8.3	11	145	78	33	106	121	106	245	364	55	25
3	7.3	12	125	76	32	96	151	113	203	291	53	24
4	6.5	12	136	72	80	88	244	408	169	221	51	24
5	6.6	11	133	69	64	83	1180	319	141	179	53	23
6	6.4	11	146	66	47	78	1340	247	124	191	51	22
7	5.7	9.9	216	64	40	73	981	199	113	350	46	21
8	5.6	9.6	189	60	39	69	600	195	97	233	43	20
9	5.4	9.3	164	55	36	65	415	187	86	194	40	20
10	5.2	14	141	53	36	62	261	149	78	167	73	20
11	5.1	37	120	50	65	59	196	133	70	154	59	20
12	12	35	360	48	92	57	165	129	62	139	53	20
13	16	24	1180	64	95	59	146	118	61	113	59	18
14	19	21	1160	51	301	60	139	122	61	96	49	18
15	13	38	772	41	875	56	176	106	53	87	44	19
16	10	154	472	40	584	60	171	96	48	117	40	18
17	8.7	101	307	38	362	66	159	86	57	88	39	17
18	8.9	74	225	36	272	63	149	79	103	165	37	16
19	23	63	184	35	223	70	145	83	107	120	38	16
20	16	59	153	35	196	79	138	87	70	93	38	17
21	13	189	130	34	164	148	126	109	55	85	34	16
32	11	137	125	34	141	217	116	91	48	79	33	15
23	17	110	120	34	127	202	120	108	43	71	45	15
24	47	100	115	74	186	174	118	119	87	64	39	16
25	27	186	110	91	166	152	130	104	116	58	34	16
26	20	163	105	67	153	135	113	101	84	53	31	15
27	16	144	100	48	136	118	103	98	67	141	29	13
28	15	146	97	48	145	137	98	106	58	107	28	18
29	14	241	93	40	140	151	129	907	54	79	28	17
30	13	210	89	36	---	125	120	793	599	69	29	16
31	12	---	85	35	---	109	---	521	---	63	32	---
TOTAL	401.7	2343.8	7672	1654	4864	3136	8158	6134	3493	4746	1341	562
MEAN	13.0	78.1	247	53.4	168	101	272	198	116	153	43.3	18.7
MAX	47	241	1180	91	875	217	1340	907	599	495	73	27
MIN	5.1	9.3	85	34	32	56	98	79	43	53	28	13
†	8.9	8.3	9.2	11.7	10.8	8.9	9.2	9.4	9.8	9.5	9.7	9.0
MEAN‡	16.2	87.6	275	65.1	179	110	281	208	126	157	53.0	23.5
CFSM‡	.38	2.04	6.41	1.52	4.17	2.56	6.55	4.85	2.94	3.66	1.24	.55
IN‡	.43	2.31	7.25	1.72	4.72	2.90	7.41	5.49	3.32	4.14	1.40	.62

CAL YR 1983 TOTAL 40201.0 MEAN 110 MAX 1530 MIN 5.1 MEAN‡ 119 CFSM‡ 2.98 IN‡ 37.79
WTR YR 1984 TOTAL 44505.5 MEAN 122 MAX 1340 MIN 5.1 MEAN‡ 132 CFSM‡ 3.08 IN‡ 41.78

† Diversion from Still Creek Reservoir, equivalent in cubic feet per second, furnished by Panther Valley Water Company.

‡ Adjusted for diversion and change in contents in Still Creek Reservoir.

01470500 SCHUYLKILL RIVER AT BERNE, PA

LOCATION.--Lat 40°31'21", long 75°59'55", Berks County, Hydrologic Unit 02040203, on right bank 50 ft (15 m) upstream from highway bridge at Berne, 0.5 mi (0.8 km) upstream from Mill Creek, and 6.5 mi (10.5 km) downstream from Little Schuylkill River. Water-quality sampling site at bridge 50 ft (15 m) downstream.

DRAINAGE AREA.--355 mi^2 (919 km^2).

PERIOD OF RECORD.--August 1947 to current year. Monthly discharge only for August 1947, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 310.65 ft (94.686 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some regulation at low flow by mine pumpage and by Still Creek Reservoir (station 01469200) about 25 mi (40 km) upstream from station.

AVERAGE DISCHARGE.--37 years, 725 ft^3/s (20.53 m^3/s), 27.73 in/yr (704 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,800 ft^3/s (1,210 m^3/s) June 22, 1972, gage height, 19.0 ft (5.79 m), from floodmark in gage shelter, from rating curve extended above 17,000 ft^3/s (481 m^3/s); minimum, 31 ft^3/s (0.88 m^3/s) Sept. 2, 1949.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1942 reached a stage of 15.0 ft (4.57 m), from floodmarks, discharge, 26,900 ft^3/s (762 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 4,400 ft^3/s (125 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage Height (ft)	Gage Height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage Height (ft)	Gage Height (m)
Dec. 14	0215	*20100	569	13.31	4.057	May 29	1400	17300	490	12.52	3.816
Feb. 15	0445	6750	191	9.02	2.749	June 24	2215	4580	130	8.06	2.457
Apr. 6	0245	11100	314	10.63	3.240	June 30	1045	5220	148	8.36	2.548
May 4	0745	5830	165	8.63	2.630						

Minimum discharge, 114 ft^3/s (3.24 m^3/s) Oct. 9, 10, gage height, 4.73 ft (1.442 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	155	202	1630	780	368	1160	1370	1550	3070	2980	490	313
2	178	194	1340	740	355	1080	1610	1310	2300	2780	465	272
3	144	194	1180	713	597	987	1680	1260	1840	2250	467	252
4	133	207	1350	682	1150	905	2030	4550	1520	1800	444	278
5	136	199	1410	620	755	840	6850	3340	1250	1700	503	242
6	132	185	1450	590	556	780	8860	2420	1090	2310	443	229
7	128	182	2200	560	476	740	5170	1900	981	2630	411	217
8	120	186	1900	540	416	695	3460	1990	859	2090	408	212
9	121	191	1600	510	410	660	2570	2030	770	1680	378	203
10	122	214	1360	485	393	620	2030	1690	675	1410	1980	202
11	137	656	1160	467	674	580	1660	1480	632	1450	1640	210
12	176	650	2970	432	753	550	1430	1340	567	1280	1180	205
13	291	439	11600	472	785	579	1260	1180	547	992	927	198
14	302	362	13900	455	1490	584	1160	1150	594	853	727	203
15	203	493	5890	420	6320	577	1420	1000	500	750	605	205
16	165	2900	3920	410	4360	657	1360	901	454	1040	526	192
17	155	1600	2790	400	3010	723	1320	809	460	809	462	180
18	163	1020	2190	385	2350	689	1290	749	891	933	425	187
19	334	787	1830	380	1910	725	1410	778	792	843	444	187
20	257	654	1530	375	1730	774	1400	780	560	676	436	173
21	197	2290	1300	370	1510	1140	1250	1150	468	646	372	184
22	180	1630	1240	360	1320	1920	1130	865	421	626	351	180
23	243	1210	1190	715	1190	1680	1150	975	389	567	448	172
24	792	1020	1120	1080	1780	1390	1160	1100	1360	525	391	178
25	452	2180	1080	1810	1630	1210	1160	909	2130	489	326	186
26	343	2090	1030	1670	1490	1080	1030	884	1230	453	304	176
27	286	1590	980	719	1280	971	949	916	867	1180	284	161
28	247	1430	940	604	1320	1090	891	832	697	895	268	200
29	238	2270	890	445	1400	1370	1230	10900	596	675	271	191
30	216	1980	860	401	---	1220	1130	7690	2800	589	265	176
31	206	---	820	392	---	1200	---	4420	---	541	457	---
TOTAL	6952	29205	74650	18982	41778	29176	60420	62848	31310	38442	17098	6164
MEAN	224	974	2408	612	1441	941	2014	2027	1044	1240	552	205
MAX	792	2900	13900	1810	6320	1920	8860	10900	3070	2980	1980	313
MIN	120	182	820	360	355	550	891	749	389	453	265	161
CFSM	.63	2.74	6.78	1.72	4.06	2.65	5.67	5.71	2.94	3.49	1.55	.58
IN.	.73	3.06	7.82	1.99	4.38	3.06	6.33	6.59	3.28	4.03	1.79	.65

CAL YR 1983 TOTAL 370707 MEAN 1016 MAX 20700 MIN 111 CFSM 2.86 IN. 38.85
WTR YR 1984 TOTAL 417025 MEAN 1139 MAX 13900 MIN 120 CFSM 3.21 IN. 43.70

01470756 MAIDEN CREEK AT VIRGINVILLE, PA

LOCATION.--Lat 40°30'51", long 75°53'00", Berks County, Hydrologic Unit 02040203, on right bank 0.9 mi (1.4 km) downstream from Sacony Creek, 0.9 mi (1.4 km) southwest of Virginville, and 1.0 mi (1.6 km) upstream from Moselem Creek.

DRAINAGE AREA.--159 mi² (412 km²).

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 310 ft (94.5 m), from topographic map.

REMARKS.--Records good. Several observations of water temperture were made during the year.

AVERAGE DISCHARGE.--11 years, 282 ft³/s (7.986 m³/s), 24.04 in/yr (611 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,420 ft³/s (238 m³/s) Jan. 24, 1979, gage height, 12.67 ft (3.862 m); minimum, 11 ft³/s (0.31 m³/s) Aug. 25, Sept. 24, 25, 1980; minimum gage height, 1.88 ft (0.573 m) Aug. 25, 1980.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of 17.2 feet (5.24 m), from floodmarks, discharge, about 14,000 ft³/s (396 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 14	0330	*5950	169	*10.21	3.112
Jan. 26	2200	2560	72.5	6.55	1.996
Feb. 15	0815	2430	68.8	6.38	1.945
Apr. 6	0400	5490	155	9.79	2.984
May 4	0800	2960	83.8	7.04	2.146
May 29	1700	5490	155	9.79	2.984
June 24	2330	2930	83.0	7.01	2.137
July 7	1100	2740	77.6	6.78	2.067

Minimum daily discharge, 15 ft³/s (0.42 m³/s) Oct. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	53	621	215	155	354	849	309	1050	720	173	75
2	24	50	464	205	162	323	848	264	733	616	160	62
3	21	50	397	197	223	297	749	288	565	430	153	61
4	17	50	620	190	970	268	823	2260	449	341	142	155
5	16	45	652	185	444	242	2760	1260	362	479	182	91
6	17	43	678	180	283	223	4170	789	323	1160	147	66
7	16	40	974	170	194	204	1860	588	282	2010	126	58
8	15	39	732	160	169	186	1110	739	245	1080	129	54
9	15	37	559	152	139	171	784	779	213	694	107	51
10	15	44	450	145	146	157	615	620	186	522	201	51
11	16	207	364	140	480	161	506	522	167	525	264	51
12	20	207	1230	133	459	166	431	462	149	430	268	49
13	64	117	4610	139	372	175	378	382	150	321	252	43
14	82	96	4640	130	559	212	345	362	164	266	179	43
15	42	152	2080	120	2070	224	392	313	131	230	151	47
16	26	1350	1210	113	1540	302	484	276	119	321	131	45
17	23	650	814	106	975	363	403	242	138	231	117	41
18	23	400	610	100	757	358	355	221	341	454	105	40
19	109	294	499	96	603	368	344	237	272	312	109	38
20	69	232	391	92	531	352	328	270	162	239	111	38
21	37	676	328	89	447	465	295	467	134	257	90	37
22	29	435	320	88	383	560	267	274	119	230	83	34
23	63	347	308	140	344	477	317	373	110	190	148	34
24	584	315	295	300	542	399	329	420	703	168	110	35
25	205	1050	285	1020	547	355	293	323	1340	146	82	35
26	137	924	275	2130	480	327	253	301	553	131	74	34
27	105	624	265	1380	403	287	231	277	363	598	69	32
28	84	591	255	348	439	387	214	272	287	355	66	47
29	72	1240	245	204	467	532	366	3530	239	269	67	50
30	61	893	235	158	---	521	309	3140	540	228	72	41
31	57	---	225	140	---	634	---	1640	---	199	122	---
TOTAL	2082	11251	25631	8965	15283	10050	21408	22200	10589	14152	4190	1538
MEAN	67.2	375	827	289	527	324	714	716	353	457	135	51.3
MAX	584	1350	4640	2130	2070	634	4170	3530	1340	2010	268	155
MIN	15	37	225	88	139	157	214	221	110	131	66	32
CFSM	.42	2.36	5.20	1.82	3.31	2.04	4.49	4.50	2.22	2.87	.85	.32
IN.	.49	2.63	6.00	2.10	3.58	2.35	5.01	5.19	2.48	3.31	.98	.36

CAL YR 1983 TOTAL 126278 MEAN 346 MAX 4870 MIN 12 CFSM 2.18 IN. 29.54
WTR YR 1984 TOTAL 147339 MEAN 403 MAX 4640 MIN 15 CFSM 2.53 IN. 34.47

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA

LOCATION.--Lat 40°24'48", long 76°10'19", Berks County, Hydrologic Unit 02040203, on left bank 30 ft (9.1 m) downstream from Kricks Mill Bridge, 0.4 mi (0.6 km) upstream from Mill Creek, and 3.5 mi (5.6 km) west of Bernville.

DRAINAGE AREA.--66.5 mi^2 (172.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 311.26 ft (94.872 m) Pennsylvania Department of Transportation Datum.

REMARKS.--Records good.

AVERAGE DISCHARGE.--9 years, 115 ft^3/s (3.257 m^3/s), 23.40 in/yr (594 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft^3/s (157 m^3/s) Jan. 24, 1979, gage height, 10.16 ft (3.097 m), from rating curve extended above 740 ft^3/s (21 m^3/s) on basis of contracted-opening measurement of peak flow; minimum daily, 25 ft^3/s (0.71 m^3/s) Oct. 14, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1972 reached a stage of about 9.5 ft (2.90 m), from information by local resident, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 950 ft^3/s (26.9 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 12	2345	1390	39.4	5.69	1.734	May 29	1815	1280	36.2	5.52	1.682
Dec. 14	0030	*1460	41.3	*5.80	1.768	July 7	0830	1450	41.1	5.78	1.762
Apr. 5	0700	980	27.8	4.98	1.518						

Minimum daily discharge, 30 ft^3/s (0.85 m^3/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	50	114	147	91	177	255	136	278	194	125	92
2	56	51	112	141	88	171	240	129	246	158	123	90
3	52	51	110	135	131	162	221	131	229	154	122	96
4	34	38	164	132	320	154	278	292	209	138	121	119
5	34	42	148	129	170	167	463	192	192	170	122	82
6	48	50	157	127	133	175	469	174	178	345	116	78
7	46	50	199	125	115	159	336	167	168	791	111	75
8	45	38	153	120	105	149	289	209	158	312	108	71
9	54	33	142	115	104	147	258	234	151	262	110	70
10	53	48	133	115	113	140	241	191	146	242	114	69
11	30	100	124	113	213	139	224	178	140	367	108	69
12	50	85	397	107	161	131	209	176	133	254	105	72
13	67	68	1050	104	144	133	197	169	133	222	105	68
14	73	62	879	104	216	132	198	168	142	203	102	68
15	54	92	438	101	407	136	219	149	129	188	101	68
16	60	226	328	99	272	150	209	149	124	179	97	67
17	56	106	262	98	226	166	192	136	122	171	96	65
18	42	84	225	96	213	163	180	140	242	277	93	63
19	83	76	206	96	190	160	180	144	218	191	108	55
20	52	72	183	52	182	153	170	136	153	173	100	54
21	46	144	167	58	168	184	161	132	143	194	95	54
22	45	91	333	64	155	185	152	126	133	173	93	60
23	77	81	235	70	150	165	167	132	129	160	102	61
24	135	80	199	88	328	156	168	132	218	153	94	61
25	68	192	180	84	237	154	159	121	258	146	87	54
26	57	135	165	130	214	148	148	119	171	140	87	52
27	52	113	149	152	196	142	142	120	154	182	85	50
28	49	115	271	133	210	193	139	117	145	149	84	56
29	49	188	276	110	208	340	146	755	137	139	84	61
30	49	129	178	103	---	349	141	490	166	133	75	62
31	51	---	158	97	---	278	---	329	---	129	113	---
TOTAL	1716	2690	7835	3345	5460	5358	6551	5975	5145	6689	3186	2062
MEAN	55.4	89.7	253	108	188	173	218	193	172	216	103	68.7
MAX	135	226	1050	152	407	349	469	755	278	791	125	119
MIN	30	33	110	52	88	131	139	117	122	129	75	50
CFSM	.83	1.35	3.80	1.62	2.83	2.60	3.28	2.90	2.59	3.25	1.55	1.03
IN.	.96	1.50	4.38	1.87	3.05	3.00	3.66	3.34	2.88	3.74	1.78	1.15

CAL YR 1983 TOTAL 45011 MEAN 123 MAX 1750 MIN 30 CFSM 1.85 IN. 25.18
WTR YR 1984 TOTAL 56012 MEAN 153 MAX 1050 MIN 30 CFSM 2.30 IN. 31.33

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1977 to current year.

INSTRUMENTATION.--Temperature record since October 1977.

REMARKS.--Interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26°C Aug. 8, 1980, July 16, 1983; minimum, 0.0°C on several days during winter period.

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	15.0	15.5	9.5	7.5	8.5	7.0	6.5	6.5	---	---	---
2	18.5	16.0	17.5	11.0	8.5	9.5	6.5	5.0	5.5	---	---	---
3	19.0	17.0	18.0	12.0	10.0	11.0	6.5	5.5	5.5	---	---	---
4	20.0	17.0	18.0	11.5	8.5	10.5	6.5	6.0	6.0	---	---	---
5	21.0	17.5	19.0	8.5	7.0	7.5	8.0	6.5	7.0	---	---	---
6	19.5	17.0	18.5	7.0	6.0	6.5	8.5	8.0	8.5	---	---	---
7	17.5	15.0	16.5	9.5	7.0	8.5	8.5	5.5	7.0	---	---	---
8	17.0	14.0	15.0	10.5	8.5	9.5	6.0	4.5	5.0	---	---	---
9	17.0	14.5	15.5	10.5	8.0	9.0	6.5	6.0	6.0	---	---	---
10	15.5	15.0	15.5	10.0	8.0	9.0	8.0	6.5	7.0	---	---	---
11	15.0	13.5	14.0	10.5	10.0	10.0	8.0	5.5	6.5	---	---	---
12	16.0	13.5	15.0	10.0	6.5	8.0	7.0	6.5	6.5	---	---	---
13	17.5	16.5	17.0	6.5	5.0	5.5	---	---	---	---	---	---
14	17.0	14.5	16.0	6.5	5.5	6.0	---	---	---	---	---	---
15	15.0	12.5	14.0	8.5	6.5	7.0	---	---	---	---	---	---
16	13.5	12.0	12.5	9.5	8.5	9.0	---	---	---	---	---	---
17	13.5	12.0	12.5	9.0	7.5	8.0	---	---	---	---	---	---
18	13.5	12.5	13.0	7.5	6.0	7.0	---	---	---	---	---	---
19	13.5	12.5	13.0	9.5	7.5	8.5	---	---	---	---	---	---
20	13.0	11.5	12.5	11.0	8.5	9.5	---	---	---	---	---	---
21	11.5	10.0	10.5	11.5	10.5	11.0	---	---	---	---	---	---
22	10.5	9.0	9.5	10.5	8.5	9.5	---	---	---	---	---	---
23	10.5	9.5	10.0	10.0	9.0	9.5	---	---	---	---	---	---
24	13.0	11.0	12.0	10.5	9.0	10.0	---	---	---	---	---	---
25	13.0	11.5	12.0	10.5	7.5	9.0	---	---	---	---	---	---
26	11.5	11.0	11.0	8.5	6.5	7.5	---	---	---	6.5	5.5	6.0
27	11.0	9.5	10.0	9.5	7.5	8.5	---	---	---	6.5	5.5	6.0
28	11.0	8.5	9.5	9.5	8.0	8.5	---	---	---	6.0	5.5	6.0
29	12.0	10.0	11.0	9.5	8.0	9.0	---	---	---	5.5	5.0	5.5
30	10.0	8.0	9.0	8.5	6.5	7.0	---	---	---	6.0	5.0	5.5
31	9.0	7.0	8.0	---	---	---	---	---	---	6.5	5.0	6.0
MONTH	21.0	7.0	13.5	12.0	5.0	8.5	8.5	4.5	6.5	6.5	5.0	6.0

01470779 TULPEHOCKEN CREEK NEAR BERNVILLE, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1	5.5	3.5	4.0	4.5	2.5	3.5	10.5	7.0	8.5	14.5	11.5	13.0
2	5.0	3.5	4.0	5.0	3.5	4.0	10.5	7.5	9.0	14.5	11.5	13.0
3	5.0	4.0	4.5	5.5	3.5	4.5	12.0	9.0	10.5	13.5	11.0	11.5
4	5.5	5.0	5.0	6.5	4.0	5.0	11.5	8.5	9.5	13.0	11.0	12.0
5	5.5	5.0	5.0	6.5	5.0	5.5	11.0	8.5	9.5	14.5	11.5	13.0
6	5.5	5.0	5.5	6.5	5.0	6.0	11.0	9.0	9.5	14.5	11.5	12.5
7	5.5	4.0	4.5	7.0	6.0	6.5	9.0	8.0	8.5	12.0	11.0	11.5
8	4.5	3.0	3.5	7.0	2.5	4.5	11.5	7.5	9.5	12.5	11.5	12.0
9	5.5	4.0	4.5	4.5	1.5	3.0	12.0	8.5	10.0	12.5	11.0	11.5
10	6.5	5.0	5.5	4.5	2.0	3.0	12.0	8.5	10.5	14.0	10.5	12.0
11	6.5	5.0	6.0	5.5	3.5	4.5	12.5	8.5	11.0	15.0	11.5	13.0
12	7.5	6.0	6.5	5.5	3.0	4.0	13.5	10.0	12.0	15.5	14.0	14.5
13	7.5	7.0	7.0	5.5	3.0	4.0	13.5	11.0	11.5	16.0	12.5	14.5
14	9.0	7.0	7.5	6.5	3.0	5.0	11.5	9.5	10.5	15.5	13.0	14.0
15	8.5	8.0	8.0	8.5	5.0	6.5	9.5	9.0	9.5	13.0	11.5	12.0
16	9.5	8.0	8.5	8.5	7.5	7.5	10.0	9.5	10.0	12.5	11.0	12.0
17	9.5	7.5	8.0	8.0	6.0	7.0	12.5	10.0	11.0	---	---	---
18	9.5	7.5	8.5	8.5	6.5	7.5	12.0	10.0	11.0	---	---	---
19	9.0	7.5	8.5	9.5	7.5	8.5	11.5	10.0	11.0	---	---	---
20	9.0	5.5	8.0	10.5	7.0	9.0	12.0	9.5	11.0	---	---	---
21	7.5	6.0	7.0	10.5	8.0	9.0	12.5	10.0	11.5	---	---	---
22	8.0	5.5	7.0	8.0	7.0	7.5	12.0	9.0	9.5	---	---	---
23	8.0	6.0	7.0	7.5	6.5	6.5	10.0	8.5	9.0	---	---	---
24	10.0	7.0	8.5	8.0	4.5	6.5	9.5	9.0	9.0	---	---	---
25	9.5	6.5	8.5	8.0	8.0	8.0	10.5	9.5	10.0	---	---	---
26	6.5	4.5	5.5	10.0	7.0	8.5	15.0	9.5	12.0	---	---	---
27	6.5	5.5	5.5	---	---	---	15.5	12.5	14.5	---	---	---
28	5.5	5.0	5.0	---	---	---	15.5	12.5	13.0	---	---	---
29	5.5	4.5	5.0	---	---	---	16.5	11.5	14.0	---	---	---
30	---	---	---	3.0	5.0	6.0	16.5	13.0	14.0	---	---	---
31	---	---	---	9.5	6.5	8.0	---	---	---	---	---	---
MONTH	10.0	3.0	6.5	10.5	1.5	6.0	16.5	7.0	10.5	16.0	10.5	12.0

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1							---	---	---	19.5	17.0	18.0
2							---	---	---	17.5	16.5	17.0
3							---	---	---	18.0	17.0	17.5
4							---	---	---	18.5	17.0	17.5
5							---	---	---	---	---	---
6							---	---	16.0	---	---	---
7							---	---	16.0	---	---	---
8							---	---	16.0	---	---	---
9							---	---	16 0	---	---	---
10							---	---	16.0	---	---	---
11							---	---	16.0	---	---	---
12							---	---	16.0	---	---	18.0
13							---	---	16.0	18.0	16.5	17.0
14							---	---	16.0	18.0	17.5	18.0
15							---	---	16.0	17.5	15.5	16.5
16							---	---	16.0	15.5	13.5	14.0
17							---	---	16.0	14.0	12.5	13.0
18							---	---	16.0	14.0	13.0	13.5
19							---	---	16.0	14.5	13.5	14.0
20							---	---	16.0	16.0	14.5	15.0
21							---	---	16.0	17.0	16.0	16.5
22							---	---	16.0	16.5	15.0	16.0
23							---	---	16.0	16.5	15.5	16.0
24							---	---	16.5	---	---	16.5
25							17.5	16.0	16.5	---	---	---
26							17.5	16.0	17.0	---	---	---
27							18.0	16.0	17.0	---	---	---
28							18.5	17.5	18.0	---	---	---
29							18.5	18.0	18.5	---	---	---
30							19.5	18.0	19.0	---	---	---
31							19.5	17.5	19.0	---	---	---
MONTH							19.5	16.0	16.5	19.5	12.5	16.0

01470853 FURNACE CREEK AT ROBESONIA, PA.

LOCATION.--Lat 40°20'24", long 76°08'37", Berks County, Hydrologic Unit 02040202, on downstream side of center pier of bridge, 270 feet south of Furnace Street in Robesonia, Pa.

DRAINAGE AREA.--4.18 mi^2 (10.8 km^2).

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 510 ft (155 m), from topographic map.

REMARKS.--Records good, except those for period of no gage-height record Dec. 21 to Feb. 23, which are poor. Diversion above station for municipal supply. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 227 ft^3/s (6.43 m^3/s) July 7, 1984, gage height, 4.70 ft (1.433 m), from rating curve extended above 55 ft^3/s (1.56 m^3/s); minimum, 0.05 ft^3/s (0.001 m^3/s) Sept. 11, 20, 1983, gage height, 2.71 ft (0.826 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft^3/s (1.98 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)	Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
Dec. 12	1715	210	5.95	4.53	1.381	June 24	1915	87	2.46	3.87	1.180
Dec. 13	1545	108	3.06	3.98	1.213	July 7	0030	*227	6.43	*4.70	1.433
May 29	0830	200	5.66	4.51	1.375	Sept. 3	2030	117	3.31	4.10	1.250

Minimum daily discharge, 0.49 ft^3/s (0.014 m^3/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.3	8.6	9.4	5.2	11	18	7.7	19	13	5.3	3.5
2	1.4	1.5	7.4	8.8	4.6	11	15	7.1	16	7.6	6.0	3.0
3	.54	1.5	6.8	8.2	9.0	10	13	9.6	15	6.5	5.8	17
4	.49	1.7	15	7.6	22	9.1	25	25	13	7.0	6.3	14
5	1.1	1.7	11	7.0	10	11	47	12	12	8.3	6.7	7.7
6	1.4	1.8	16	6.6	8.0	13	39	11	11	15	5.9	6.0
7	.63	1.6	15	6.4	7.0	9.4	26	10	9.8	51	5.5	5.0
8	.54	1.5	11	6.0	6.6	8.6	22	19	8.8	16	5.2	4.5
9	.68	1.6	10	5.7	6.5	8.7	18	16	8.0	13	5.9	4.0
10	1.4	6.1	9.2	5.4	6.8	8.9	16	12	7.5	13	7.4	3.8
11	.52	17	8.2	5.2	16	8.1	15	11	6.7	20	7.5	3.8
12	5.1	7.1	51	4.9	10	7.8	14	12	6.2	12	6.1	3.8
13	2.6	3.5	74	4.7	9.0	7.7	12	10	6.2	11	5.3	3.0
14	7.3	2.3	46	4.4	15	7.5	13	10	6.6	11	5.1	2.9
15	2.1	17	27	4.3	30	7.8	16	9.2	5.7	11	4.5	3.6
16	1.5	22	20	4.0	19	9.4	15	8.5	5.4	10	4.1	3.0
17	1.5	6.6	17	3.8	15	10	12	7.8	7.2	9.9	3.9	2.6
18	.91	4.2	14	3.6	13	10	12	7.8	19	21	3.8	2.2
19	9.4	3.4	13	3.5	12	11	11	8.4	15	11	6.6	2.0
20	1.7	3.3	12	3.4	11	9.9	10	7.4	6.5	10	5.3	1.7
21	1.2	16	11	3.2	10	16	9.7	6.9	5.4	12	4.3	1.4
22	1.1	5.5	20	3.1	9.2	14	9.4	6.4	4.9	11	4.1	1.9
23	12	4.2	15	3.0	8.5	11	12	9.0	4.8	7.4	9.2	2.1
24	19	5.0	12	6.8	19	10	11	7.3	32	7.2	5.1	1.8
25	3.4	21	11	5.5	17	10	9.9	5.8	16	6.6	4.2	1.3
26	2.0	9.7	10	4.8	15	9.3	9.0	6.4	9.7	6.2	4.0	1.7
27	1.3	7.0	9.4	11	13	8.7	8.6	6.8	7.4	12	3.3	1.6
28	.99	11	15	7.8	16	18	8.2	6.2	6.7	7.2	3.3	3.9
29	.97	24	19	7.0	14	17	9.3	73	6.1	6.1	3.4	2.9
30	1.4	11	12	6.2	---	16	8.6	41	7.5	5.6	3.4	2.3
31	1.2	---	10	5.6	---	17	---	25	---	5.4	13	---
TOTAL	86.67	221.1	536.6	176.9	357.4	336.9	464.7	415.3	305.1	364.0	169.5	118.0
MEAN	2.80	7.37	17.3	5.71	12.3	10.9	15.5	13.4	10.2	11.7	5.47	3.93
MAX	19	24	74	11	30	18	47	73	32	51	13	17
MIN	.49	1.3	6.8	3.0	4.6	7.5	8.2	5.8	4.8	5.4	3.3	1.3
+	.67e	.63	.65	.65	.70	.69	.70	.75	.77	.79	.79e	.77e
MEAN‡	3.47	8.00	18.0	6.36	13.0	11.6	16.2	14.2	11.0	12.5	6.26	4.70
CFSM‡	.83	1.91	4.30	1.52	3.11	2.78	3.88	3.40	2.63	2.99	1.50	1.12
IN‡	.94	2.16	4.87	1.72	3.52	3.15	4.39	3.85	2.98	3.38	1.70	1.27

CAL YR 1983 TOTAL 3070.75 MEAN 8.41 MAX 106 MIN .11 MEAN‡ 9.12 CFSM‡ 2.18 IN‡ 29.64
WTR YR 1984 TOTAL 3552.17 MEAN 9.71 MAX 74 MIN .49 MEAN‡ 10.4 CFSM‡ 2.50 IN‡ 33.92

+ Diversion, equivalent in cubic feeet per second, furnished by Womelsdorf-Robesonia Joint Water Authority.
‡ Adjusted for diversion.
e Estimated.

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA

LOCATION.--Lat 40°22'14", long 76°01'32", Berks County, Hydrologic Unit 02040203, on right bank 1 mi (1.6 km) upstream from Rebers Bridge and Plum Creek, 1 mi (1.6 km) east of Blue Marsh, 3 mi (4.8 km) north of Sinking Spring, and 5.5 mi (8.8 km) northwest of Reading. Water-quality sampling site at Rebers bridge 1.0 mi (1.6 km) downstream.

DRAINAGE AREA.--175 mi^2 (453 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1965 to current year.

REVISED RECORD.--WDR PA-72-1: 1969-1971 (M).

GAGE.--Water-stage recorder. Datum of gage is 230.06 ft (70.122 m) Western Berks Water Authority datum. Prior to Nov. 25, 1974, water-stage recorder at site 0.3 mi (0.5 km) downstream at same datum.

REMARKS.--Records good. Flow regulated since April 1979 by Blue Marsh Reservoir (station 01470870) 0.8 mi (1.3 km) upstream.

AVERAGE DISCHARGE.--19 years, 280 ft^3/s (7.930 m^3/s), 21.73 in/yr (552 mm/yr), adjusted for storage since April 1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft^3/s (456 m^3/s) June 22, 1972, gage height, 18.7 ft (5.70 m), from floodmarks, from rating curve extended above 3,000 ft^3/s (85.0 m^3/s) on basis of runoff comparison with downstream station; minimum since construction of dam, 5.8 ft^3/s (0.16 m^3/s) Nov. 17, 1977; minimum gage height, 1.45 ft (0.442 m) July 29, 30, 31, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,840 ft^3/s (109 m^3/s) Dec. 15, gage height, 7.43 ft (2.265 m); minimum daily, 51 ft^3/s (1.44 m^3/s) Oct. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	100	547	467	216	337	677	427	2390	818	135	157
2	82	101	381	464	189	298	940	327	1060	653	215	156
3	194	118	343	361	172	400	863	337	1050	427	236	157
4	268	123	345	285	257	400	650	797	608	488	195	335
5	265	115	631	286	351	400	999	1120	349	337	197	264
6	262	115	760	321	386	400	1740	603	412	881	197	132
7	260	114	741	343	407	400	1870	536	413	1270	197	127
8	259	114	649	291	404	337	889	589	325	1320	274	119
9	258	87	425	247	402	314	426	798	265	969	329	119
10	256	82	343	247	340	343	479	625	264	1370	513	106
11	254	115	343	247	249	343	620	488	299	1100	503	132
12	312	114	534	248	252	269	573	416	325	637	501	132
13	381	114	95	209	492	288	479	418	225	360	412	125
14	403	187	228	182	651	343	480	438	257	380	254	124
15	242	304	3500	182	479	343	481	449	340	381	184	132
16	241	515	3770	165	992	343	562	409	169	381	185	134
17	133	740	3610	170	1410	343	502	351	170	348	186	122
18	54	810	2080	182	1450	343	422	282	691	651	184	96
19	54	799	557	182	981	377	306	283	975	539	184	86
20	54	413	543	182	492	400	255	283	375	278	328	92
21	54	582	470	182	390	655	367	347	261	227	241	98
22	54	493	630	182	377	838	367	380	294	227	101	86
23	55	198	790	182	400	672	275	376	296	287	220	86
24	394	301	707	220	694	624	170	373	299	335	210	86
25	473	635	707	245	654	620	144	255	871	351	132	84
26	144	802	701	304	652	323	146	208	1280	278	132	84
27	66	594	507	378	693	129	122	322	1190	414	140	86
28	51	344	370	401	674	430	116	367	416	417	154	97
29	65	711	667	400	614	794	118	431	209	386	152	111
30	66	845	702	399	---	661	312	1010	383	175	148	111
31	84	---	469	263	---	471	---	2770	---	135	208	---
TOTAL	5820	10685	27145	8417	15720	13238	16350	16815	16461	16820	7247	3776
MEAN	188	356	876	272	542	427	545	542	549	543	234	126
MAX	473	845	3770	467	1450	838	1870	2770	2390	1370	513	335
MIN	51	82	95	165	172	129	116	208	169	135	101	84
MEAN‡	108	353	879	264	537	443	622	620	479	530	239	124
CFSM‡	.62	2.02	5.02	1.51	3.07	2.53	3.55	3.54	2.74	3.03	1.37	.71
IN‡	.70	2.28	5.67	1.71	3.47	2.86	4.01	4.00	3.10	3.42	1.55	.80

CAL YR 1983 TOTAL 127459 MEAN 349 MAX 3950 MIN 40 MEAN‡ 351 CFSM‡ 2.00 IN‡ 27.21
WTR YR 1984 TOTAL 158494 MEAN 433 MAX 3770 MIN 51 MEAN‡ 433 CFSM‡ 2.47 IN‡ 33.61

‡ Adjusted for change in contents in Blue Marsh Reservoir.

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1968 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1968 to current year.

INSTRUMENTATION.--Temperature recorder since October 1968.

REMARKS.--Temperature recorder located at gaging station 1.0 mi (1.6 km) upstream from sampling site. Interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 34.0°C Oct. 2, 1968; minimum, freezing point on several days during Dec. 1970, Jan., Mar. 1971, Feb. 1975, Feb. 1979.

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	18.0	17.5	18.0	13.0	12.5	12.5	8.5	8.0	8.0	3.0	2.5	2.5
2	18.5	18.0	18.0	12.5	12.0	12.5	8.0	7.5	8.0	3.0	3.0	3.0
3	18.5	17.5	18.0	12.5	12.0	12.0	7.5	7.5	7.5	3.0	3.0	3.0
4	18.5	18.0	18.5	12.5	11.5	12.0	7.5	7.5	7.5	3.0	3.0	3.0
5	18.5	18.0	18.5	11.5	11.0	11.5	7.5	7.5	7.5	3.0	3.0	3.0
6	19.0	18.0	18.5	11.0	11.0	11.0	7.5	7.5	7.5	3.0	3.0	3.0
7	18.5	18.0	18.5	11.5	11.0	11.0	7.5	6.5	7.0	3.5	3.0	3.0
8	18.0	18.0	18.0	11.0	11.0	11.0	6.5	6.0	6.5	3.5	3.0	3.0
9	18.0	18.0	18.0	11.0	11.0	11.0	6.5	6.0	6.5	3.5	3.0	3.5
10	18.0	17.5	18.0	11.0	10.5	11.0	6.5	6.0	6.5	3.5	3.5	3.5
11	17.5	17.0	17.5	11.0	10.5	11.0	6.5	6.0	6.0	3.5	3.0	3.5
12	17.0	17.0	17.0	10.5	10.0	10.5	6.0	6.0	6.0	3.5	3.5	3.5
13	17.0	16.5	17.0	10.0	9.5	9.5	7.0	6.0	6.5	3.5	3.5	3.5
14	17.0	16.5	17.0	9.5	9.5	9.5	7.0	6.5	7.0	4.0	3.5	4.0
15	17.0	16.5	16.5	10.0	9.5	9.5	7.0	6.5	6.5	4.0	4.0	4.0
16	16.5	16.5	16.5	10.0	9.5	9.5	7.5	7.0	7.0	4.0	4.0	4.0
17	16.5	16.0	16.0	9.5	9.0	9.5	7.5	7.0	7.0	4.0	4.0	4.0
18	16.0	15.5	15.5	9.0	9.0	9.0	7.5	7.0	7.0	4.0	4.0	4.0
19	15.5	15.0	15.5	9.0	9.0	9.0	7.5	6.5	7.0	4.0	4.0	4.0
20	15.0	14.5	15.0	9.0	9.0	9.0	6.5	6.0	6.5	4.0	3.5	4.0
21	15.0	14.5	14.5	9.5	9.0	9.0	6.5	6.0	6.0	4.0	3.5	4.0
22	14.5	14.0	14.5	9.5	9.0	9.0	6.0	6.0	6.0	4.0	4.0	4.0
23	14.5	14.0	14.0	9.0	9.0	9.0	6.0	5.0	5.5	4.0	3.5	4.0
24	14.0	13.5	14.0	9.0	9.0	9.0	5.5	4.0	5.0	4.5	4.0	4.5
25	14.0	13.5	14.0	9.0	8.5	9.0	4.0	2.5	3.0	4.5	4.5	4.5
26	13.5	12.5	13.5	9.0	8.5	8.5	2.5	2.0	2.0	4.5	4.0	4.5
27	13.5	12.5	13.0	9.0	8.5	8.5	2.5	.5	2.0	4.5	4.0	4.5
28	14.0	13.5	13.5	9.0	8.5	8.5	2.5	2.0	2.5	4.5	4.5	4.5
29	14.0	13.0	13.5	8.5	8.5	8.5	2.5	2.5	2.5	4.5	4.5	4.5
30	13.0	13.0	13.0	8.5	8.5	8.5	2.5	2.5	2.5	4.5	4.5	4.5
31	13.0	12.5	[illegible]	---	---	---	2.5	2.5	2.5	4.5	4.5	4.5
MONTH	19.0	12.5	16.0	13.0	8.5	10.0	8.5	.5	6.0	4.5	2.5	4.0

01470960 TULPEHOCKEN CREEK AT BLUE MARSH DAMSITE NEAR READING, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	4.5	4.0	4.5	5.5	5.0	5.0	7.0	6.0	6.5	13.0	11.5	12.5
2	4.5	4.0	4.5	5.0	4.5	5.0	7.5	6.5	7.0	13.0	12.5	12.5
3	4.5	4.0	4.5	5.0	4.5	5.0	7.0	7.0	7.0	13.0	12.5	12.5
4	4.5	4.5	4.5	5.0	4.5	4.5	7.0	7.0	7.0	13.5	12.0	12.5
5	4.5	4.5	4.5	5.0	5.0	5.0	8.0	6.5	7.0	13.5	13.0	13.5
6	4.5	4.0	4.5	5.0	5.0	5.0	8.5	8.0	8.0	13.5	12.5	13.0
7	4.5	4.0	4.5	5.0	4.5	5.0	8.5	8.5	8.5	---	---	---
8	4.5	4.0	4.5	5.0	4.5	4.5	9.0	8.5	8.5	---	---	---
9	4.5	4.0	4.0	4.5	4.5	4.5	9.0	8.5	9.0	---	---	---
10	4.5	4.0	4.0	4.5	4.5	4.5	9.5	9.0	9.0	---	---	---
11	4.5	4.0	4.0	4.5	4.5	4.5	9.5	9.0	9.0	---	---	---
12	4.5	4.0	4.5	4.5	4.5	4.5	9.5	9.5	9.5	---	---	---
13	4.5	4.5	4.5	4.5	4.5	4.5	9.5	9.0	9.5	---	---	---
14	4.5	4.5	4.5	4.5	4.5	4.5	9.0	9.0	9.0	---	---	---
15	4.5	4.0	4.5	4.5	4.5	4.5	9.5	9.0	9.0	---	---	---
16	4.5	4.0	4.5	5.0	4.5	4.5	10.0	9.5	9.5	---	---	---
17	4.5	4.5	4.5	4.5	4.5	4.5	11.5	10.0	10.0	---	---	---
18	4.5	4.5	4.5	5.0	4.5	4.5	10.5	9.5	10.0	---	---	---
19	4.5	4.5	4.5	5.0	4.5	5.0	10.0	10.0	10.0	---	---	---
20	5.0	4.5	4.5	5.5	5.0	5.0	11.5	10.0	10.5	---	---	---
21	5.0	4.5	4.5	5.5	5.0	5.0	11.5	11.0	11.5	---	---	---
22	5.0	4.5	5.0	5.5	5.0	5.5	11.5	11.0	11.0	---	---	---
23	5.0	5.0	5.0	5.5	5.5	5.5	11.5	11.0	11.0	---	---	---
24	5.5	5.0	5.5	6.0	5.0	5.5	11.5	11.0	11.0	---	---	---
25	5.5	5.5	5.5	6.0	5.5	5.5	11.5	11.0	11.0	---	---	---
26	6.0	5.5	5.5	6.5	5.5	6.0	12.0	10.5	11.5	---	---	---
27	6.0	5.5	5.5	6.5	5.5	6.0	12.0	11.0	11.5	---	---	---
28	6.0	5.5	5.5	6.5	6.0	6.5	12.0	11.5	11.5	---	---	---
29	6.0	5.5	5.5	6.0	6.0	6.0	12.5	11.5	12.0	---	---	---
30	---	---	---	6.5	6.0	6.0	12.0	11.5	12.0	---	---	---
31	---	---	---	6.5	6.0	6.0	---	---	---	---	---	---
MONTH	6.0	4.0	4.5	6.5	4.5	5.0	12.5	6.0	9.5	13.5	11.5	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	20.5	20.0	20.0	20.5	20.0	20.5
2	---	---	---	---	---	---	20.5	20.0	20.0	20.5	20.0	20.5
3	---	---	---	---	---	---	20.0	20.0	20.0	21.0	20.0	20.5
4	---	---	---	---	---	---	20.0	19.5	20.0	21.5	20.5	21.0
5	---	---	---	---	---	---	20.0	19.5	20.0	21.0	20.5	20.5
6	16.0	15.5	15.5	---	---	---	20.5	19.5	20.0	20.5	20.0	20.0
7	16.0	15.5	16.0	---	---	---	21.0	20.0	20.0	20.5	20.0	20.0
8	18.0	16.0	16.5	---	---	---	20.5	20.0	20.0	20.5	19.5	20.0
9	18.0	16.5	17.0	---	---	---	---	---	---	20.5	19.5	20.0
10	---	---	---	---	---	---	---	---	---	20.0	19.5	20.0
11	---	---	---	---	---	---	---	---	---	20.0	19.5	19.5
12	---	---	---	---	---	---	---	---	---	20.5	19.5	20.0
13	---	---	---	---	---	---	---	---	---	20.5	19.0	19.5
14	---	---	---	---	---	---	---	---	---	20.0	19.5	19.5
15	---	---	---	---	---	---	---	---	---	19.5	19.0	19.5
16	---	---	---	---	---	---	---	---	---	19.5	19.0	19.5
17	---	---	---	---	---	---	---	---	---	20.0	19.0	19.5
18	---	---	---	20.5	19.5	20.0	---	---	---	20.0	18.5	19.0
19	---	---	---	20.5	20.0	20.0	---	---	---	19.5	18.5	18.5
20	---	---	---	20.0	19.5	20.0	---	---	---	19.5	18.0	18.5
21	---	---	---	19.5	19.0	19.5	---	---	---	19.5	18.0	18.5
22	---	---	---	19.5	19.0	19.5	21.5	20.5	21.0	19.0	17.5	18.0
23	---	---	---	20.0	19.0	19.5	21.0	20.5	20.5	19.0	17.5	18.0
24	---	---	---	---	---	---	21.0	20.5	20.5	19.0	18.0	18.0
25	---	---	---	---	---	---	21.0	20.0	20.5	18.5	18.0	18.0
26	---	---	---	---	---	---	21.0	20.0	20.5	18.0	17.5	18.0
27	---	---	---	20.5	19.0	20.0	21.0	20.0	20.5	18.0	17.5	17.5
28	---	---	---	20.5	20.0	20.0	20.5	20.0	20.5	17.5	17.5	17.5
29	---	---	---	20.5	19.5	20.0	20.5	20.0	20.0	18.0	17.5	17.5
30	---	---	---	20.5	19.5	20.0	20.5	20.0	20.5	18.0	17.5	17.5
31	---	---	---	20.5	16.0	20.0	21.0	20.0	20.5	---	---	---
MONTH	18.0	15.5	16.5	20.5	16.0	20.0	21.5	19.5	20.5	21.5	17.5	19.0

01471000 TULPEHOCKEN CREEK NEAR READING, PA

LOCATION.--Lat 40°22'08", long 75°58'46", Berks County, Hydrologic Unit 02040203, on right bank 15 ft (4.6 m) upstream from covered bridge, 1 mi (2 km) downstream from Cacoosing Creek, 2.5 mi (4.0 km) upstream from mouth, and 3.5 mi (5.6 km) northwest of square at Reading. Water-quality sampling site at covered bridge 15 ft (4.6 m) downstream.

DRAINAGE AREA.--211 mi^2 (546 km^2).

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for October, November 1950, published in WSP 1722.

REVISED RECORDS.--WSP 1382: 1951-53, 1954(M). WSP 2102: 1965(M). WDR PA-72-1: 1971(M).

GAGE.--Water-stage recorder. Datum of gage is 216.60 ft (66.020 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated since April 1979 by Blue Marsh Reservoir (station 01470870) 3.9 mi (6.3 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years, 313 ft^3/s (8.864 m^3/s), 20.10 in/yr (511 mm/yr), adjusted for storage since April 1979.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,000 ft^3/s (481 m^3/s) June 23, 1972, gage height, 15.65 ft (4.770 m), from floodmark in gage shelter, from rating curve extended above 3,500 ft^3/s (99 m^3/s) on basis of contracted-opening measurement of peak flow; minimum, 23 ft^3/s (0.65 m^3/s) Dec. 1, 1964, gage height, 0.94 ft (0.287 m), result of upstream shutoff.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,960 ft^3/s (112 m^3/s) Dec. 15, gage height, 5.59 ft (1.704 m); minimum daily, 55 ft^3/s (1.56 m^3/s) Oct. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	128	669	542	261	462	821	539	2510	886	223	236
2	83	128	479	539	240	406	1060	436	1150	754	289	236
3	184	145	432	445	247	516	1000	451	1130	500	313	250
4	275	159	486	363	424	513	815	1040	739	582	284	417
5	280	146	711	360	441	526	1270	1260	453	439	294	363
6	280	146	901	392	455	533	1990	738	511	976	280	212
7	280	145	864	415	467	519	2090	665	506	1730	294	203
8	280	145	791	366	457	457	1090	737	427	1540	358	190
9	280	116	536	311	454	426	606	925	361	1130	429	188
10	275	100	440	311	405	455	623	753	357	1510	629	165
11	275	189	431	310	360	455	737	619	382	1240	598	206
12	332	175	907	306	344	370	698	553	406	790	601	203
13	412	166	948	273	552	382	605	540	306	470	515	189
14	438	231	840	243	774	453	604	554	336	485	359	183
15	263	389	3620	242	717	457	609	554	434	480	280	202
16	263	685	3790	224	1150	471	684	516	255	478	273	197
17	159	845	3610	225	1530	486	631	457	260	445	272	181
18	55	900	2260	239	1540	489	550	373	740	729	271	137
19	81	877	703	239	1110	519	447	380	1090	657	274	116
20	62	528	643	236	621	538	369	372	473	380	399	120
21	59	637	581	234	526	772	494	436	353	330	333	136
22	59	638	800	234	502	948	494	478	376	324	164	115
23	84	264	918	231	522	786	402	488	374	375	297	114
24	483	358	812	271	872	734	276	481	417	424	301	115
25	545	761	788	315	787	724	237	356	923	438	210	112
26	192	932	772	373	769	450	228	288	1340	370	208	114
27	87	733	772	452	807	221	200	427	1250	536	215	114
28	65	452	694	467	776	533	187	474	528	510	231	136
29	87	832	799	455	735	935	220	831	263	484	230	161
30	86	998	813	449	---	838	405	1240	469	275	231	157
31	105	---	550	324	---	654	---	2830	---	222	321	---
TOTAL	6490	12948	32360	10386	18845	17029	20442	20791	19119	20489	9976	5468
MEAN	209	432	1044	335	650	549	681	671	637	661	322	182
MAX	545	998	3790	542	1540	948	2090	2830	2510	1730	629	417
MIN	55	100	431	224	240	221	187	288	255	222	164	112
MEAN‡	129	429	1047	327	645	565	758	749	567	648	327	180
CSFM‡	.61	2.03	4.96	1.55	3.06	2.68	3.59	3.55	2.69	3.07	1.55	.85
IN‡	.69	2.29	5.61	1.75	3.46	3.03	4.06	4.02	3.04	3.47	1.75	.96

CAL YR 1983 TOTAL 150538 MEAN 412 MAX 3950 MIN 51 MEAN‡ 414 CFSM‡ 1.96 IN‡ 26.63
WTR YR 1984 TOTAL 194343 MEAN 531 MAX 3790 MIN 55 MEAN‡ 531 CFSM‡ 2.52 IN‡ 34.17

‡ Adjusted for change in contents in Blue Marsh Reservoir.

01471510 SCHUYLKILL RIVER AT READING, PA

LOCATION.--Lat 40°19'52", long 75°56'22", Berks County, Hydrologic Unit 02040203, on Penn Avenue Bridge at West Reading, 0.8 mi (1.3 km) downstream from Tulpehocken Creek.

DRAINAGE AREA.--880 mi² (2,280 km²).

PERIOD OF RECORD.--May 1914 to Sept. 1915, Oct. 1919 to Sept. 1930 and June 30, 1977 to current year. Monthly discharge only prior to current year published in WSP 1302. Diversion by Schuylkill Navigation Canal included during the navigation seasons of 1914-15.

REVISED RECORDS.--WDR PA-78-1: 1977.

GAGE.--Nonrecording gage. Datum of gage is 185.50 ft (56.540 m) Pennsylvania Railroad Datum. May 7, 1914 to Sept. 30, 1930, nonrecording gage. June 30, 1977 to July 5, 1979, water-stage recorder at site 1,500 ft (457 m) downstream at same datum.

REMARKS.--Records fair, except for periods of ice and missing record, which are poor. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Reservoir (station 01470870) since April 1979 and to some extent by Lake Ontelaunee, capacity 518,600,000 ft³ (14.7 hm³). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years (water years 1915, 1920-30, 1978-84), 1,591 ft³/s (45.06 m³/s), 24.56 in/yr (624 mm/yr), 1914-15 adjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,500 ft³/s (1,060 m³/s) Jan. 25, 1979, gage height, 17.36 ft (5.291 m) at site 1,500 ft (457 m) downstream, from rating curve extended above 16,000 ft³/s (453 m³/s); minimum observed, 82 ft³/s (2.32 m³/s) Aug. 12, 1930, gage height, -1.19 ft (-0.363 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 23, 1972, reached a stage of about 31.3 ft (9.54 m) at site 1,500 ft (457 m) downstream, present datum, from floodmarks, discharge, about 90,000 ft³/s (2,550 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 28,100 ft³/s (796 m³/s), Dec. 14, gage height, 16.09 ft (4.904 m); minimum daily, 296 ft³/s (8.38 m³/s) Oct 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	330	417	3590	2170	1080	2650	4040	2810	7210	5200	1280	1020
2	339	412	2770	2060	1000	2390	4580	2440	5010	4320	1260	880
3	418	421	2400	1880	1000	2380	4550	2420	4300	3710	1240	940
4	488	444	2700	1710	2500	2230	5220	7640	3430	3150	1210	1230
5	513	415	3410	1660	3000	2240	10000	6980	2550	3500	1410	1140
6	487	403	3530	1670	2200	2360	17100	4920	2450	6050	1320	800
7	472	395	4440	1650	1700	2260	10600	3970	2280	7560	1210	729
8	458	391	4130	1500	1400	1980	7050	4120	2010	5600	1240	679
9	453	380	3310	1330	1310	1890	5220	4610	1780	4300	1240	659
10	452	406	2980	1290	1250	1780	4510	3890	1640	3970	3380	610
11	454	967	2460	1250	1700	1790	4070	3370	1560	3770	2980	640
12	585	1320	3920	1060	2190	1620	3720	3030	1500	3360	2780	640
13	822	930	18200	1010	2000	1650	3130	2680	1400	2420	2430	617
14	842	824	23300	1000	3000	1730	2670	2590	1480	2160	1850	603
15	588	1130	13600	970	10700	1710	2890	2340	1430	1950	1570	649
16	503	5020	9930	940	10000	1890	3080	2120	1120	2160	1420	629
17	409	4030	8070	940	7200	2130	3020	1890	1130	2090	1320	594
18	296	2930	6100	940	5800	2160	2720	1700	2280	2450	1220	555
19	519	2380	4090	920	4600	2260	2760	1750	2850	2620	1160	548
20	477	1800	3520	880	3800	2310	2710	1730	1670	1800	1390	540
21	354	3570	3050	860	3200	2690	2640	2520	1310	1700	1200	561
22	320	3320	4190	830	2900	4320	2430	2080	1220	1640	940	546
23	483	2220	4960	810	2590	3870	2400	2070	1160	1560	1210	537
24	1690	2010	3920	800	3940	3440	2270	2590	1850	970	1290	535
25	1540	4000	3080	1300	3830	3130	2150	2050	6110	920	980	543
26	898	4760	2800	2000	3610	2600	1950	1910	4330	790	890	535
27	624	3640	2670	2200	3270	2110	1800	2090	3340	2420	840	509
28	502	2920	3160	2090	3180	2610	1690	1910	2220	2660	830	542
29	474	4680	5440	1560	3430	3850	2310	12300	1630	2030	830	573
30	420	4640	3290	1400	---	3650	2280	14400	3320	1620	870	540
31	406	---	2340	1140	---	3460	---	9610	---	1670	1310	---
TOTAL	17616	61175	165350	41820	97380	77340	125560	120530	75570	90120	44100	20123
MEAN	568	2039	5334	1349	3358	2495	4185	3888	2519	2907	1423	671
MAX	1690	5020	23300	2200	10700	4320	17100	14400	7210	7560	3380	1230
MIN	296	380	2340	800	1000	1620	1690	1700	1120	790	830	509

CAL YR 1983 TOTAL 789722 MEAN 2164 MAX 24000 MIN 240
WTR YR 1984 TOTAL 936684 MEAN 2559 MAX 23300 MIN 296

01471980 MANATAWNY CREEK NEAR POTTSTOWN, PA

LOCATION.--Lat 40°16'22", long 75°40'49", Berks County, Hydrologic Unit 02040203, on left bank about 180 ft (55 m) upstream from bridge on Manatawny Street, 0.7 mi (1.1 km) downstream from Ironstone Creek, 2.4 mi (3.9 km) northwest of Pottstown, 3.1 mi (5.0 km) upstream from mouth, and 4.7 mi (7.6 km) southwest of Boyertown.

DRAINAGE AREA.--85.5 mi^2 (221.4 km^2).

PERIOD OF RECORD.--August 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft (45.720 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Records good except those for winter periods, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 142 ft^3/s (4.021 m^3/s), 22.59 in/yr (574 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,290 ft^3/s (206 m^3/s) July 7, 1984, gage height, 11.24 ft (3.426 m); minimum, 13 ft^3/s (0.37 m^3/s) Aug. 26, 1981, gage height, 1.65 ft (0.503 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 22, 1972, reached a stage of 17.1 ft (5.21 m), from floodmarks, discharge, about 9,600 ft^3/s (272 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,200 ft^3/s (34.0 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 24	0530	1320	37.4	4.78	1.457
Dec. 13	0145	4950	140	9.06	2.761
Dec. 28	2215	1550	43.9	5.12	1.561
Feb. 15	0545	2500	70.8	6.42	1.957
Apr. 5	1015	2010	56.9	5.77	1.759
Apr. 6	0215	2960	83.8	6.99	2.131
May 4	0915	2390	67.7	6.28	1.914
May 29	2015	3600	102	7.70	2.347
June 25	1045	1290	36.5	4.74	1.445
July 1	1000	3240	91.8	7.32	2.231
July 7	0645	*7290	206	*11.24	3.426

Minimum discharge, 20 ft^3/s (0.56 m^3/s) Oct. 5, gage height, 1.79 ft (0.546 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	51	198	227	130	209	369	186	347	885	82	61
2	28	52	166	220	172	201	326	156	277	250	80	49
3	25	52	176	174	228	190	283	170	247	184	80	52
4	21	52	513	171	551	176	330	1300	223	140	78	315
5	30	49	310	169	272	190	1640	392	203	133	177	100
6	28	46	229	171	220	306	1320	281	188	410	107	62
7	24	44	260	167	183	228	572	254	186	3010	93	53
8	21	42	205	154	165	193	436	368	159	554	98	48
9	21	41	175	146	145	185	354	452	145	366	72	44
10	21	96	160	140	141	180	309	263	133	301	73	45
11	21	169	144	135	245	175	279	231	124	293	122	47
12	58	157	1220	130	279	176	258	225	113	236	235	48
13	85	86	2450	125	232	195	243	211	124	188	215	40
14	82	68	1210	120	290	261	237	208	168	161	92	39
15	33	203	580	115	1860	299	264	190	115	141	81	48
16	26	651	419	110	992	318	418	177	101	140	69	44
17	24	199	322	105	484	302	284	162	127	138	70	38
18	24	130	275	105	394	241	270	152	237	188	62	36
19	157	104	252	98	299	231	263	184	267	148	64	35
20	62	90	220	96	264	211	226	155	138	108	71	35
21	31	386	217	93	231	272	209	258	107	157	58	33
22	26	186	614	91	216	266	200	153	94	155	53	31
23	140	129	383	90	213	211	243	183	87	113	97	31
24	666	141	259	88	697	208	225	258	132	95	73	32
25	167	657	235	120	359	206	211	152	632	84	54	32
26	98	271	220	190	308	197	197	192	209	79	50	32
27	73	208	210	300	236	183	179	263	130	498	48	31
28	60	265	616	268	255	346	163	198	104	213	46	49
29	57	546	501	179	273	656	266	1380	109	125	47	50
30	52	228	228	152	---	499	207	1070	168	101	48	39
31	51	---	219	140	---	409	---	520	---	89	175	---
TOTAL	2237	5399	13186	4589	10334	7940	10781	10344	5394	9683	2770	1599
MEAN	72.2	180	425	148	356	256	359	334	180	312	89.4	53.3
MAX	666	657	2450	300	1860	656	1640	1380	632	3010	235	315
MIN	21	41	144	88	130	175	163	152	87	79	46	31
CFSM	.84	2.11	4.97	1.73	4.16	2.99	4.20	3.91	2.11	3.65	1.05	.62
IN.	.97	2.35	5.74	2.00	4.50	3.45	4.69	4.50	2.35	4.21	1.21	.70

CAL YR 1983 TOTAL 60515 MEAN 166 MAX 2450 MIN 21 CFSM 1.94 IN. 26.33
WTR YR 1984 TOTAL 84256 MEAN 230 MAX 3010 MIN 21 CFSM 2.69 IN. 36.66

01472000 SCHUYLKILL RIVER AT POTTSTOWN, PA

LOCATION.--Lat 40°14'30", long 75°39'07", Montgomery County, Hydrologic Unit 02040203, on right bank 75 ft (23 m) upstream from Hanover Street Bridge in Pottstown and 0.4 mi (0.6 km) downstream from Manatawny Creek.

DRAINAGE AREA.--1,147 mi² (2,971 km²).

PERIOD OF RECORD.--October 1926 to current year. Monthly discharges only for some periods, published in WSP 1302.

GAGE.--Water-stage recorder. Datum of gage is 117.86 ft (35.924 m) National Geodetic Vertical Datum of 1929. October 1926 to Nov. 22, 1928, nonrecording gage and Nov. 23, 1928, to Dec. 26, 1972, recording gage, at site 100 ft (30 m) downstream at same datum. Dec. 27, 1972, to May 10, 1974, nonrecording gage 1.0 mi (1.6 km) downstream at datum 2.83 ft (0.863 m) lower.

REMARKS.--Records good. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Reservoir (station 01470870) since April 1979 and to some extent by Lake Ontelaunee, capacity 518,600,000 ft³ (14.7 hm³). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--58 years, 1,914 ft³/s (54.2 m³/s), 22.66 in/yr (576 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,900 ft³/s (2,720 m³/s) June 23, 1972, gage height, 29.97 ft (9.135 m), from floodmark; minimum, 87 ft³/s (2.46 m³/s) Aug. 13, 1930, gage height, 0.43 ft (0.131 m); minimum daily, 175 ft³/s (4.96 m³/s) Sept. 19, 1932.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known prior to October 1926, 21.0 ft (6.40 m) Feb. 28, 1902, from floodmarks, discharge, 53,900 ft³/s (1,530 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,400 ft³/s (918 m³/s), Dec. 14, gage height, 15.10 ft (4.602 m); minimum daily, 419 ft³/s (11.9 m³/s) Oct. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	430	530	4380	2900	1500	3260	4480	3360	9940	8200	1570	1300
2	540	527	3380	2500	1200	2790	5030	3000	6310	6150	1500	987
3	500	516	2930	2300	1230	2750	5070	2780	5240	4350	1570	924
4	585	547	4290	2200	3420	2590	4790	9720	4470	3860	1490	1620
5	614	534	4250	2020	3600	2710	11800	9640	3300	3120	1710	1490
6	706	503	4220	2050	2410	3250	21100	6430	3050	5730	1690	956
7	598	482	5200	2050	2010	2890	14700	4990	2830	17100	1460	857
8	590	474	4800	1950	1700	2540	8950	4790	2570	8130	1620	804
9	591	472	3880	1720	1620	2350	6160	6060	2260	5850	1490	774
10	602	464	3260	1670	1620	2220	5070	4960	2090	5070	2890	758
11	633	1020	2840	1690	1910	2150	4500	4210	1960	4770	3100	746
12	841	1660	7760	1480	2940	2030	4090	3770	1900	4270	3200	835
13	1140	1260	24700	1410	2610	1980	3580	3500	1800	3040	2790	759
14	1190	994	30100	1390	3430	2540	3370	3240	2070	2670	2130	717
15	1000	1510	17900	1390	12800	2540	3500	3030	1840	2440	1730	788
16	696	6350	12300	1270	12200	2650	4060	2780	1570	2320	1540	754
17	634	5060	9440	1300	8460	2830	3870	2530	1460	2700	1430	695
18	419	3510	7180	1300	6890	2750	3440	2300	2420	2610	1330	642
19	819	2790	4590	1300	5710	2720	3400	2310	3850	3250	1280	607
20	809	2360	3850	1190	4390	2750	3300	2270	2390	2230	1410	600
21	541	4000	3450	1140	3850	3220	3120	2790	1770	2180	1460	587
22	423	4300	5740	1100	3370	4760	2920	2730	1590	2110	1060	582
23	680	2720	5760	1050	3140	4350	3060	2470	1530	1900	1260	560
24	3810	2370	4440	1000	5740	3790	2930	3210	1550	1850	1540	550
25	2250	5430	3900	1070	4860	3460	2730	2670	6610	1770	1110	557
26	1380	6080	3400	2000	4380	3120	2570	2340	5250	1650	1000	551
27	932	4570	3000	2690	3930	2480	2350	2970	3910	3200	953	538
28	756	3650	2900	2640	3680	3090	2190	2470	2930	3470	929	606
29	622	5900	5000	2190	4110	5520	2990	10200	1990	2430	919	677
30	574	5720	8400	1900	---	5060	2820	22600	2710	2010	931	631
31	509	---	3700	1700	---	4270	---	13400	---	1710	1620	---
TOTAL	26414	76303	210940	53560	118710	95410	151940	153520	93160	122140	49712	23452
MEAN	852	2543	6805	1728	4093	3078	5065	4952	3105	3940	1604	782
MAX	3810	6350	30100	2900	12800	5520	21100	22600	9940	17100	3200	1620
MIN	419	464	2840	1000	1200	1980	2190	2270	1460	1650	919	538

CAL YR 1963 TOTAL 981283 MEAN 2688 MAX 30100 MIN 271
WTR YR 1984 TOTAL 1175261 MEAN 3211 MAX 30100 MIN 419

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA

LOCATION.--Lat 40°09'05", long 75°36'06", Chester County, Hydrologic Unit 02040203, on right bank 70 ft (21 m) downstream from two-span county bridge on French Creek Road, 4.5 mi (7.2 km) northwest of Phoenixville, and 7.3 mi (11.7 km) upstream from mouth.

DRAINAGE AREA.--59.1 mi^2 (153.1 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 160 ft (49 m), from topographic map. Prior to Nov. 7, 1968, nonrecording gage at site 70 ft (21 m) upstream at same datum.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--16 years, 94.9 ft^3/s (2.688 m^3/s), 21.81 in/yr (554 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft^3/s (317 m^3/s) June 22, 1972, gage height, 13.66 ft (4.164 m), from rating curve extended above 2,500 ft^3/s (70.8 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 8.9 ft^3/s (0.25 m^3/s) Aug. 25-29, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft^3/s (21.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 16	0030	801	22.7	6.82	2.079
Dec. 13	0030	4230	120	10.20	3.109
Dec. 22	1245	959	27.2	7.08	2.158
Dec. 28	1930	825	23.4	6.86	2.091
Feb. 15	2315	1840	52.1	8.21	2.502
Feb. 24	0345	979	27.7	7.11	2.167
Apr. 5	0345	1300	36.8	7.57	2.307
May 4	0500	953	27.0	7.07	2.155
May 29	1800	1270	36.0	7.53	2.295
July 1	1515	*6410	182	*11.49	3.502
July 7	0445	3130	88.6	9.40	2.865

Minimum discharge, 16 ft^3/s (0.44 m^3/s) Oct. 9, 10, 11, gage height, 4.09 ft (1.247 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	24	98	137	79	152	239	137	211	2230	71	37
2	23	24	82	123	74	141	199	121	174	439	70	31
3	21	24	84	103	116	135	181	121	163	176	71	32
4	18	25	297	101	357	128	224	694	149	136	69	55
5	17	23	197	101	174	184	949	258	132	123	82	38
6	21	23	136	101	122	250	506	187	124	217	68	31
7	19	23	169	99	95	169	288	174	118	1580	62	28
8	17	23	108	91	87	141	239	239	110	264	71	26
9	16	22	95	85	80	135	213	310	104	177	59	25
10	16	27	91	82	90	130	199	180	99	160	57	27
11	16	86	85	78	184	125	187	159	98	185	70	31
12	26	67	992	74	194	122	178	166	91	153	69	31
13	63	41	1820	70	153	159	176	167	88	124	61	29
14	39	32	700	66	266	312	185	146	151	113	55	26
15	27	124	292	63	1580	265	200	135	97	106	50	43
16	21	437	212	61	880	266	275	127	86	101	47	38
17	20	108	173	58	314	256	208	120	90	104	48	27
18	21	68	151	55	264	197	184	116	190	131	44	24
19	56	53	141	52	208	176	177	137	168	114	44	24
20	41	46	122	50	184	160	165	121	100	94	48	23
21	24	256	109	48	163	241	149	109	85	171	42	23
22	21	98	484	46	147	230	139	103	78	130	39	21
23	56	67	263	45	150	164	199	126	75	101	47	21
24	344	65	152	43	689	147	184	152	116	91	52	21
25	113	418	124	60	257	150	155	104	153	83	42	21
26	60	190	115	110	203	146	138	121	86	78	34	21
27	42	102	110	238	171	133	130	219	75	241	34	22
28	34	130	316	175	224	314	122	138	71	135	34	28
29	29	351	305	106	197	538	222	689	68	90	34	36
30	25	135	142	91	---	370	154	749	121	81	34	30
31	24	---	128	83	---	296	---	311	---	75	48	---
TOTAL	1289	3112	8293	2695	7702	6332	6764	6636	3471	8003	1656	870
MEAN	41.6	104	268	86.9	266	204	225	214	116	258	53.4	29.0
MAX	344	437	1820	238	1580	538	949	749	211	2230	82	55
MIN	16	22	82	43	74	122	122	103	68	75	34	21
CFSM	.70	1.76	4.53	1.47	4.50	3.45	3.81	3.62	1.96	4.37	.90	.49
IN.	.81	1.96	5.22	1.70	4.85	3.99	4.26	4.18	2.18	5.04	1.04	.55

CAL YR 1983 TOTAL 42824 MEAN 117 MAX 1820 MIN 15 CFSM 1.98 IN. 26.96
WTR YR 1984 TOTAL 56823 MEAN 155 MAX 2230 MIN 16 CFSM 2.62 IN. 35.77

01472157 FRENCH CREEK NEAR PHOENIXVILLE, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)
OCT 20...	0845	44	138	7.5	10.0	11.5	1.2	9.9	56	18

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
OCT 20...	15	4.5	6.4	2.2	38	19	9.9	17	109

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
OCT 20...	100	.030	1.1	<.010	--	.40	1.5	.030

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	CYANIDE DISSOLVED (MG/L AS CN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT 20...	.030	.020	<10	--	100	--	6		--

01472198 PERKIOMEN CREEK AT EAST GREENVILLE, PA

Location.--Lat 40°23'38", long 75°30'57", Montgomery County, Hydrologic Unit 02040203, on right bank 100 ft (30.5 m) upstream from Church Road Bridge, 0.9 mi (1.4 km) upstream of Molasses Creek, and 1 mi (1.6 km) southwest of East Greenville.

DRAINAGE AREA.--38.0 mi^2 (98.4 km^2).

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 288.50 ft (87.935 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,900 ft^3/s (705 m^3/s) June 25, 1984, gage height, 707 ft (2.155 m); minimum, 4.5 ft^3/s (0.13 m^3/s) Aug. 23, 1983, gage height, 1.22 ft (0.372 m); minimum daily, 8.9 ft^3/s (0.25 m^3/s) Oct. 22, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 13	0230	4050	115	4.71	1.436	May 29	---	6230	176	5.16	1.573
Dec. 28	1915	4050	115	4.71	1.436	June 25	---	*24900	705	*7.07	2.155
Apr. 5	0945	2020	57.2	4.10	1.250	July 7	0415	14200	402	6.19	1.878
May 4	0445	1920	54.4	4.06	1.237						

Minimum discharge, 8.0 ft^3/s (0.23 m^3/s) Oct. 17, gage height, 1.37 ft (0.418 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	20	86	67	39	84	180	67	160	319	37	26
2	15	19	71	67	39	65	145	60	130	136	36	23
3	14	19	68	65	90	64	121	69	107	94	37	23
4	13	20	279	62	334	62	149	703	92	81	36	78
5	14	19	160	62	109	84	1020	164	80	164	43	38
6	17	19	118	62	81	129	332	124	73	266	40	29
7	13	19	136	60	60	93	211	109	66	1820	43	27
8	12	18	87	54	49	75	163	164	60	255	54	26
9	12	17	75	50	48	120	139	168	56	167	37	25
10	12	23	70	45	58	69	125	110	52	133	35	26
11	12	56	62	42	146	66	114	97	49	128	42	27
12	23	37	298	40	131	64	106	94	47	103	39	26
13	33	26	1370	40	105	69	101	92	44	82	41	24
14	26	23	483	39	143	132	100	85	51	75	34	24
15	17	98	219	39	603	134	120	70	43	69	31	25
16	15	321	157	39	282	151	203	66	40	102	29	25
17	14	78	123	38	158	147	124	62	68	88	27	23
18	14	53	105	38	139	122	110	59	118	95	27	22
19	46	44	96	37	114	113	103	64	122	69	26	22
20	22	39	80	37	102	99	94	70	52	57	30	22
21	17	242	69	36	89	136	87	128	44	69	26	21
22	16	75	310	35	81	117	80	63	41	65	25	21
23	66	56	140	40	78	93	100	94	45	56	36	21
24	342	56	98	54	339	83	97	98	86	52	30	20
25	59	326	75	79	143	81	84	60	718	41	26	21
26	37	133	82	83	112	77	75	81	190	34	25	20
27	28	94	88	95	95	71	70	110	122	232	24	19
28	25	154	451	76	124	135	66	82	95	71	23	27
29	23	298	187	58	115	230	93	990	84	51	24	26
30	21	115	92	49	---	196	72	550	95	44	24	23
31	21	---	68	48	---	199	---	240	---	40	38	---
TOTAL	1013	2517	5803	1636	4006	3360	4584	4993	3030	5058	1025	780
MEAN	32.7	83.9	187	52.8	138	108	153	161	101	163	33.1	26.0
MAX	342	326	1370	95	603	230	1020	990	718	1820	54	78
MIN	12	17	62	35	39	62	66	59	40	34	23	19
CFSM	.86	2.21	4.92	1.39	3.63	2.84	4.03	4.24	2.66	4.29	.87	.68
IN.	.99	2.46	5.68	1.60	3.92	3.29	4.49	4.89	2.97	4.95	1.00	.76

CAL YR 1983 TOTAL 28793 MEAN 78.9 MAX 1370 MIN 10 CFSM 2.08 IN. 28.19
WTR YR 1984 TOTAL 37805 MEAN 103 MAX 1820 MIN 12 CFSM 2.71 IN. 37.01

01472199 NORTHWEST BRANCH PERKIOMEN CREEK AT HILLEGASS, PA

Location.--Lat 40°22'26", long 75°31'22", Montgomery County, Hydrologic Unit 02040203, on left bank 0.3 mi (0.5 km) downstream of bridge on private road, and 0.5 mi (0.8 km) north of Hillegass.

DRAINAGE AREA.--23.0 mi² (59.6 km²).

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 290.00 ft (88.392 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 2,690 ft ³/s (76.2 m³/s) Dec. 28, 1983, gage height, 5.52 ft (1.682 m); minimum, 4.2 ft³/s (0.12 m ³/s) Sept. 21, 1983, gage height, 1.38 ft (0.421 m); minimum daily, 4.4 ft ³/s (0.12 m³/s) Sept. 20, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (22.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 13	0100	1790	50.7	5.01	1.527	May 29	1430	1610	45.6	4.89	1.490
Dec. 28	1715	*2690	76.2	*5.52	1.682	June 25	0830	1880	53.2	5.07	1.545
Feb. 15	0530	851	24.1	4.22	1.286	July 1	1015	1330	37.7	4.67	1.423
Apr. 5	0745	1270	36.0	4.62	1.408	July 7	0215	2530	71.6	5.44	1.658
May 4	0415	1020	28.9	4.40	1.341						

Minimum discharge, 4.9 ft³/s (0.14 m³/s) Oct. 10, 11, gage height, 1.43 ft (0.436 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	10	54	118	24	54	112	38	101	271	30	15
2	11	9.9	43	83	22	45	95	34	80	80	29	13
3	7.1	10	42	68	40	42	77	54	68	50	28	14
4	5.7	9.9	207	50	183	40	94	353	59	40	27	72
5	6.5	9.5	105	43	71	54	615	103	49	52	48	35
6	6.9	9.3	85	39	45	101	208	77	45	149	37	17
7	6.3	9.0	86	38	34	64	127	67	41	1030	33	14
8	5.5	8.8	53	35	27	49	101	109	37	136	36	13
9	5.1	8.6	45	31	27	61	87	114	34	93	26	13
10	5.1	11	42	27	30	46	78	71	32	79	25	13
11	5.1	43	36	26	86	45	71	60	31	78	26	14
12	13	29	440	25	84	38	65	58	29	60	25	13
13	23	18	713	25	64	43	62	52	27	49	28	12
14	21	14	312	25	107	92	61	50	31	42	23	12
15	9.8	73	146	24	500	96	79	43	27	39	21	13
16	7.4	271	107	24	222	107	133	41	25	45	19	12
17	6.6	53	86	24	113	99	79	37	29	40	17	11
18	6.3	33	73	25	101	82	71	36	71	54	17	11
19	24	28	66	23	80	81	65	39	76	40	16	11
20	14	25	53	21	71	68	57	44	32	32	17	10
21	8.6	171	47	20	61	91	50	77	27	46	14	10
22	7.2	48	217	20	53	78	45	39	25	45	14	9.6
23	33	34	100	25	51	59	65	56	23	38	23	9.6
24	255	36	64	31	223	50	62	60	55	32	20	9.8
25	38	235	60	62	96	49	50	36	447	28	15	9.4
26	23	91	72	66	76	46	43	46	70	28	13	9.3
27	18	64	74	68	62	42	40	67	41	205	13	9.0
28	14	117	556	49	86	96	37	50	34	73	13	13
29	12	208	830	33	81	153	57	604	31	45	13	14
30	11	75	168	30	---	125	43	339	44	37	14	11
31	9.7	---	141	30	---	119	---	152	---	33	30	---
TOTAL	624.6	1762.0	5123	1208	2720	2215	2829	3006	1721	3069	710	432.7
MEAN	20.1	58.7	165	39.0	93.8	71.5	94.3	97.0	57.4	99.0	22.9	14.4
MAX	255	271	830	118	500	153	615	604	447	1030	48	72
MIN	5.1	8.6	36	20	22	38	37	34	23	28	13	9.0
CFSM	.87	2.55	7.17	1.70	4.08	3.11	4.10	4.22	2.50	4.30	.00	.63
IN.	1.01	2.85	8.29	1.95	4.40	3.58	4.58	4.86	2.78	4.96	1.15	.70

CAL YR 1983 TOTAL 19697.8 MEAN 54.0 MAX 830 MIN 4.4 CFSM 2.35 IN. 31.86
WTR YR 1984 TOTAL 25420.3 MEAN 69.5 MAX 1030 MIN 5.1 CFSM 3.02 IN. 41.11

01472620 EAST BRANCH PERKIOMEN CREEK NEAR DUBLIN, PA

LOCATION.--Lat 40°24'14", long 75°14'05", Bucks County, Hydrologic Unit 02040203, on right bank 40 ft (12 m) downstream of bridge on Bucks Road, 4.5 miles northeast of Perkasie, and 5 miles southeast of Quakertown.

DRAINAGE AREA.--4.05 mi² (10.5 km²).

PERIOD OF RECORD.--October 1983 to September 1984.

GAGE.--Water-stage recorder. Datum of gage is 334.124 ft (101.841 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Serveal observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2270 ft³/s (64.3 m³/s), July 7,1984, gage height 8.41 ft (2.563 m), from slope-area measurement; minimum, 0.02 ft ³/s (0.0006 m³/s), Sept. 27, 28, 1984, gage height, 1.01 ft (0.308 m); minimum daily, 0.03 ft³/s (0.0008 m³/s), Sept. 27, 28, 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s (9.91 m³/s) and maximum (*): ft (1.750 m);

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 13	1715	409	11.6	3.86	1.177	June 25	0430	423	12.0	3.92	1.195
Apr. 5	0515	728	20.6	5.01	1.527	July 1	1200	1440	40.8	6.86	2.091
May 4	0315	650	18.4	4.76	1.451	July 7	0330	*2270	64.3	*8.41	2.563
May 29	1545	641	18.2	4.73	1.442						

Minimum discharge, 0.02 ft³/s (0.0006 m²/s), Sept. 27, 28, gage height, 1.01 ft (0.308 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	.59	4.9	1.6	2.1	4.0	18	6.9	10	190	1.0	.17
2	---	.53	3.6	1.2	2.0	2.9	9.3	4.7	5.2	13	.89	.14
3	---	.53	3.9	1.0	6.8	2.2	5.9	4.1	3.5	4.9	.82	.20
4	---	.49	88	1.0	137	1.8	17	123	2.6	3.4	.70	1.2
5	---	.45	17	1.0	22	5.4	278	14	1.7	3.4	.77	.70
6	---	.45	22	1.1	7.9	20	27	6.2	1.3	9.1	.71	.34
7	---	.43	19	1.0	4.0	9.3	11	4.5	1.0	313	.50	.24
8	---	.36	5.7	.81	2.1	5.8	6.2	22	.81	13	.47	.23
9	---	.32	4.2	.52	1.9	4.7	3.9	15	.61	6.7	.37	.20
10	---	1.4	3.7	.66	3.8	3.7	3.1	5.7	.45	3.7	7.3	.20
11	---	9.2	3.0	.68	15	3.1	2.6	3.9	.35	5.6	1.8	.21
12	61	5.4	73	.66	14	2.6	2.2	4.3	.28	3.0	2.3	.20
13	.30	2.6	169	.64	9.7	11	2.0	4.5	.34	1.7	2.5	.15
14	.34	2.0	39	.62	20	94	2.0	3.6	.95	1.1	1.1	.14
15	.23	27	13	.60	94	48	2.7	2.4	.38	.86	.79	.15
16	.17	69	7.5	.57	33	30	47	1.9	.28	.76	.59	.24
17	.14	8.0	4.4	.56	14	15	12	1.5	.42	.60	.48	.21
18	.14	4.0	3.2	.55	13	8.6	6.9	1.3	2.7	5.5	.38	.15
19	.83	2.9	2.6	.54	7.9	6.4	5.5	1.4	5.2	1.9	.36	.08
20	.39	2.5	1.6	.53	6.3	5.0	4.8	2.1	1.3	.93	.36	.06
21	.22	45	1.0	.51	4.5	8.1	3.5	7.6	.70	21	.26	.06
22	.16	6.8	69	.50	3.2	7.3	2.5	2.1	.51	5.0	.23	.06
23	3.7	4.1	13	.90	3.6	4.4	7.3	9.7	.41	2.4	.42	.05
24	50	8.1	4.4	2.0	68	3.2	7.8	7.2	7.8	1.6	.39	.05
25	4.8	89	3.5	24	13	3.4	5.0	2.6	70	1.1	.25	.04
26	2.4	16	2.6	34	7.0	3.2	3.4	16	5.4	.81	.20	.04
27	1.5	7.2	2.5	34	4.4	2.5	2.5	14	2.6	22	.17	.03
28	1.1	38	43	13	22	19	2.1	14	1.7	5.6	.18	.03
29	.86	38	15	4.8	11	54	7.6	172	1.2	2.7	.21	.06
30	.71	8.3	3.8	3.1	---	53	8.6	148	12	1.9	.18	.08
31	.65	---	2.2	2.7	---	46	---	24	---	1.4	.28	---
TOTAL	---	398.65	648.3	135.35	553.2	487.6	517.4	650.2	141.69	647.66	26.96	5.71
MEAN	---	13.3	20.9	4.37	19.1	15.7	17.2	21.0	4.72	20.9	.87	.19
MAX	---	89	169	34	137	94	278	172	70	313	7.3	1.2
MIN	---	.32	1.0	.50	1.9	1.8	2.0	1.3	.28	.60	.17	.03

01473000 PERKIOMEN CREEK AT GRATERFORD, PA

LOCATION.--Lat 40°13'46", long 75°27'07", Montgomery County, Hydrologic Unit 02040203, on left bank 1,650 ft (503 m) upstream from highway bridge at Graterford, 0.5 mi (0.8 km) upstream from Landis Brook and 2.5 mi (4.0 km) north of Collegeville.

DRAINAGE AREA.--279 mi^2 (723 km^2).

PERIOD OF RECORD.--June 1914 to current year. Monthly discharge only for some periods, published in WSP 1302. Prior to October 1950, published as "at Graters Ford."

REVISED RECORDS.--WSP 756: Drainage area. WSP 1171: 1935(M). WSP 1302: 1915-16, 1927-29. WSP 1382: 1932-33, 1935, 1937, 1942, 1947, 1948(M), 1949(P), 1950(M), 1951-52(P).

GAGE.--Water-stage recorder. Datum of gage is 112.66 ft (34.339 m) National Geodetic Vertical Datum of 1929. June 1914 to Sept. 6, 1921, nonrecording gage at site 1,650 ft (503 m) downstream at datum 3.29 ft (1.003 m) lower. Sept. 7, 1921, to Sept. 13, 1927, nonrecording gage at present site and datum.

REMARKS.--Records good. Some regulation by Green Lane Reservoir (station 01472200) 10.5 mi (16.9 km) upstream since December 21, 1956.

AVERAGE DISCHARGE.--70 years, 393 ft^3/s (11.13 m^3/s), 19.11 in/yr (485 mm/yr), adjusted for storage since December 1956.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,900 ft^3/s (1,130 m^3/s) July 9, 1935, gage height, 18.26 ft (5.566 m), from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of slope-area measurement at gage height 16.23 ft (4.947 m); minimum, 4.7 ft^3/s (0.13 m^3/s) Oct. 5, 1941; minimum daily, 5.6 ft^3/s (0.16 m^3/s) Oct. 5, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,400 ft^3/s (776 m^3/s) July 7, gage height, 15.06 ft (4.590 m); minimum daily, 35 ft^3/s (0.99 m^3/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	77	658	366	200	561	1340	389	1370	7470	240	146
2	57	86	467	319	170	421	919	301	901	1770	215	97
3	51	88	426	256	252	361	694	278	648	741	210	84
4	42	85	2580	251	2030	315	682	5120	542	471	198	284
5	40	81	2000	250	1200	411	10600	1530	427	431	298	296
6	68	76	1000	249	661	1230	3030	837	364	1280	312	148
7	51	73	1550	242	438	858	1360	650	337	14800	230	121
8	45	76	741	219	285	563	928	869	286	1640	391	98
9	39	71	528	226	255	463	714	1690	251	847	237	85
10	38	76	455	195	248	400	602	795	216	639	267	82
11	35	162	390	190	539	370	522	586	195	694	245	86
12	43	206	2130	185	1070	336	468	523	182	577	246	90
13	124	145	11200	180	821	450	428	512	160	404	529	91
14	97	126	5030	175	1000	2690	440	438	197	334	250	78
15	85	273	1580	170	6430	2140	495	372	175	281	188	81
16	63	3500	960	165	3310	1730	1990	336	141	268	154	80
17	55	901	684	160	1450	1330	1140	293	137	313	131	68
18	52	439	526	155	1110	877	820	265	366	359	117	62
19	104	304	465	150	846	721	674	275	557	395	104	65
20	127	245	367	150	702	607	557	280	337	248	109	60
21	82	2060	289	145	562	737	462	642	209	754	103	57
22	67	820	2510	145	454	874	375	408	161	545	93	61
23	92	452	1670	140	410	588	508	326	136	355	109	56
24	1980	361	729	140	3020	448	633	713	168	271	171	51
25	463	3400	610	378	1270	417	505	400	5250	228	131	50
26	216	1750	580	901	861	404	396	457	1030	190	89	53
27	150	826	560	1170	592	349	337	1520	471	1580	84	53
28	116	837	2290	824	896	1170	303	626	329	885	78	58
29	92	3300	2210	392	984	3440	622	6580	265	456	80	74
30	84	1110	622	284	---	2310	467	8350	897	348	81	75
31	81	---	420	240	---	1750	---	2680	---	302	177	---
TOTAL	4680	22006	46227	9012	32066	29321	33011	39041	16705	39876	5867	2790
MEAN	151	734	1491	291	1106	946	1100	1259	557	1286	189	93.0
MAX	1980	3500	11200	1170	6430	3440	10600	8350	5250	14800	529	296
MIN	35	71	289	140	170	315	303	265	136	190	78	50
MEAN‡	184	748	1489	290	1108	948	1097	1265	550	1286	188	91.2
CFSM‡	.66	2.68	5.34	1.04	3.97	3.40	3.93	4.53	1.97	4.61	.67	.33
IN‡	.75	3.03	6.04	1.18	4.49	3.85	4.45	5.13	2.23	5.22	.76	.37

CAL YR 1983 TOTAL 218971 MEAN 600 MAX 11200 MIN 28 MEAN‡ 601 CFSM‡ 2.15 IN‡ 29.26
WTR YR 1984 TOTAL 280602 MEAN 767 MAX 14800 MIN 35 MEAN‡ 770 CFSM‡ 2.76 IN‡ 37.50

‡ Adjusted for change in contents in Green Lane Reservoir.

01473120 SKIPPACK CREEK NEAR COLLEGEVILLE, PA

LOCATION.--Lat 40°09'52", long 75°26'01", Montgomery County, Hydrologic Unit 02040203, on right bank 60 ft (18 m) downstream from two-span highway bridge, 1.5 mi (2.4 km) upstream from mouth, and 2 mi (3 km) southeast of Collegeville.

DRAINAGE AREA.--53.7 mi^2 (139.1 km^2).

PERIOD OF RECORD.--April 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 99.03 ft (30.184 m) National Geodetic Vertical Datum of 1929. Prior to June 15, 1967, nonrecording gage at site 60 ft (18 m) upstream at same datum.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years, 80.9 ft^3/s (2.291 m^3/s), 20.46 in/yr (520 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,400 ft^3/s (1,140 m^3/s) Sept. 13, 1971, gage height, 22.5 ft (6.86 m), from floodmark, from rating curve extended above 8,400 ft^3/s (238 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.1 ft^3/s (0.003 m^3/s) Sept. 12, 13, 1966; minimum gage height, 0.79 ft (0.241 m) Oct. 3, 1968, July 31, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (56.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Nov. 25	1100	2140	60.6	6.36	1.939	Apr. 5	0800	5990	170	10.46	3.138
Dec. 4	1315	3030	85.8	7.51	2.289	May 4	0530	2750	77.9	7.17	2.185
Dec. 13	0145	4770	135	9.36	2.853	May 29	1815	4880	138	9.46	2.883
Dec. 22	1330	3300	93.5	7.82	2.384	May 30	0615	4040	114	8.63	2.630
Dec. 28	1930	2390	67.7	6.71	2.045	July 1	1300	2090	59.2	6.30	1.920
Feb. 15	0400	2210	62.6	6.47	1.972	July 7	0545	*11200	317	*14.02	4.273
Mar. 14	0145	2600	73.6	6.98	2.128	July 27	0945	2020	57.2	6.08	1.853

Minimum daily discharge, 3.7 ft^3/s (0.10 m^3/s) Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	7.5	73	56	40	73	114	45	167	418	34	9.8
2	4.1	7.4	58	46	38	62	91	36	116	105	29	8.1
3	4.5	7.5	61	39	192	53	77	34	89	57	27	9.7
4	4.1	7.5	814	35	709	46	82	1110	74	40	23	47
5	4.1	7.3	199	33	156	104	2670	235	59	33	26	16
6	9.8	7.2	134	31	103	176	349	128	49	113	24	12
7	5.4	6.6	260	29	71	101	164	100	42	2910	20	10
8	4.3	6.3	91	24	53	76	121	161	36	301	28	9.2
9	3.8	6.4	71	23	50	69	97	225	30	125	18	8.3
10	3.7	7.2	63	22	53	63	82	108	25	86	16	7.6
11	4.2	30	53	22	90	57	70	84	23	108	23	7.7
12	11	17	779	21	106	49	60	75	21	104	29	8.5
13	20	12	2380	21	96	333	54	71	20	58	31	7.9
14	19	9.5	656	20	147	1310	52	57	33	45	18	7.6
15	10	101	179	20	1520	397	55	47	21	36	16	21
16	6.7	419	117	20	535	218	309	40	17	32	13	15
17	5.7	51	88	19	179	147	129	34	17	28	12	9.5
18	5.5	30	72	19	138	111	98	30	52	51	11	8.9
19	28	23	64	19	106	94	81	31	51	36	10	8.7
20	16	19	51	19	89	81	69	28	24	25	10	8.6
21	8.9	340	51	18	74	113	58	38	18	238	9.8	8.0
22	7.0	60	874	18	63	104	49	23	16	71	9.0	7.4
23	18	40	220	18	58	77	70	50	14	43	11	6.7
24	191	40	106	18	631	65	70	61	40	33	14	6.1
25	37	1020	96	153	150	63	57	27	189	26	9.8	6.2
26	20	181	92	296	107	60	46	43	52	21	8.6	6.5
27	14	86	90	602	83	52	40	139	31	503	7.8	6.3
28	12	167	630	362	136	458	35	119	23	154	8.0	9.2
29	8.7	501	199	129	109	1250	109	1570	21	73	7.5	13
30	8.1	106	81	62	---	361	55	2030	26	54	7.7	9.2
31	7.4	---	70	48	---	159	---	354	---	42	14	---
TOTAL	505.9	3323.4	8772	2262	5882	6382	5413	7133	1396	5969	525.2	319.7
MEAN	16.3	111	283	73.0	203	206	180	230	46.5	193	16.9	10.7
MAX	191	1020	2380	602	1520	1310	2670	2030	189	2910	34	47
MIN	3.7	6.3	51	18	38	46	35	23	14	21	7.5	6.1
CFSM	.30	2.07	5.27	1.36	3.78	3.84	3.35	4.28	.87	3.59	.31	.20
IN.	.35	2.30	6.08	1.57	4.07	4.42	3.75	4.94	.97	4.13	.36	.22

CAL YR 1983 TOTAL 41349.0 MEAN 113 MAX 2380 MIN 2.4 CFSM 2.10 IN. 28.64
WTR YR 1984 TOTAL 47883.2 MEAN 131 MAX 2910 MIN 3.7 CFSM 2.44 IN. 33.17

01473169 VALLEY CREEK AT PENNSYLVANIA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA.

LOCATION.--Lat 40°04'45", long 75°27'40", Chester County, Hydrologic Unit 02040202, on right bank, 100 ft. upstream of Pennsylvania turnpike bridge, 0.9 miles downstream of confluence with Little Valley Creek, near Valley Forge, Pa.

DRAINAGE AREA.--20.8 mi² (53.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Datum of gage is 108.62 ft (33.107 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except periods of ice and missing record, Oct. 1 to March 6, which are poor. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 899 ft³/s (25.5 m³/s) April 5, 1984, gage height, 8.23 ft (2.509 m), from rating curve extended above 350 ft³/s (9.91 m³/s); minimum daily, 12 ft³/s (0.34 m³/s) Oct. 5, 6, 10, 11, 17, 18, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 13	0030	627	17.8	7.17	2.185	May 29	1345	629	17.8	7.18	2.188
Apr. 5	0615	*899	25.5	*8.23	2.509						

Minimum daily discharge, 16 ft³/s (0.45 m³/s) Oct. 3-6, 8-11, 16-18, 29-31, Nov. 3, 8, 9, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	26	29	25	48	64	55	74	83	31	21
2	17	17	23	35	24	40	61	53	68	39	32	21
3	16	16	25	34	36	36	58	60	65	35	32	33
4	16	19	92	34	97	50	72	219	59	34	31	31
5	16	17	35	34	39	68	391	79	55	40	36	24
6	16	17	38	32	33	54	134	64	51	50	32	25
7	17	17	40	31	29	44	107	63	49	161	31	25
8	16	16	28	30	28	40	95	90	52	45	31	24
9	16	16	26	29	28	40	88	75	48	40	30	24
10	16	27	26	34	31	37	84	63	45	39	29	24
11	16	24	24	32	38	38	78	58	44	47	33	24
12	24	21	172	30	34	38	74	62	42	39	37	25
13	17	19	285	28	33	72	74	58	41	31	31	21
14	21	16	114	28	49	124	70	56	46	31	32	21
15	18	76	60	28	212	72	76	54	39	31	32	26
16	16	45	49	27	91	63	117	52	39	31	33	22
17	16	31	42	26	58	56	76	50	45	36	33	22
18	16	23	39	25	51	52	71	51	59	37	31	23
19	20	21	37	24	46	51	67	57	75	31	28	21
20	19	35	34	23	44	49	64	49	42	30	24	21
21	18	60	32	23	42	67	62	47	38	76	22	20
22	25	23	179	22	39	53	59	46	37	35	25	20
23	40	21	55	22	94	48	75	63	36	33	30	20
24	60	24	45	21	80	46	67	51	90	31	26	21
25	47	85	42	27	56	49	62	46	70	32	25	22
26	35	30	38	33	46	47	58	61	43	30	24	22
27	26	25	37	36	43	45	56	52	38	145	23	22
28	19	43	114	32	56	108	55	81	36	42	22	35
29	16	47	56	29	70	180	73	260	35	36	21	25
30	16	27	38	28	---	88	57	235	35	34	21	22
31	16	---	35	27	---	69	---	92	---	33	21	---
TOTAL	664	875	1886	893	1552	1872	2545	2402	1496	1437	889	707
MEAN	21.4	29.2	60.8	28.8	53.5	60.4	84.8	77.5	49.9	46.4	28.7	23.6
MAX	60	85	285	36	212	180	391	260	90	161	37	35
MIN	16	16	23	21	24	36	55	46	35	30	21	20
CFSM	1.03	1.40	2.92	1.38	2.57	2.90	4.08	3.73	2.40	2.23	1.38	1.13
IN.	1.19	1.56	3.37	1.60	2.78	3.35	4.55	4.30	2.68	2.57	1.59	1.26

CAL YR 1983 TOTAL 15091 MEAN 41.3 MAX 295 MIN 15 CFSM 1.99 IN. 26.99
WTR YR 1984 TOTAL 17218 MEAN 47.0 MAX 391 MIN 16 CFSM 2.26 IN. 30.79

01473169 VALLEY CREEK AT PENNSYLVANIA TURNPIKE BRIDGE NEAR VALLEY FORGE, PA

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1983 to September 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
01473169 - VALLEY CREEK AT PA TRPK NR VALLEY FORGE (LAT 40 04 45 LONG 075 27 40)										
AUG										
22...	0810	26	515	7.8	--	15.0	--	--	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
AUG									
22...	--	--	--	--	186	--	39	--	298

DATE	SOLIDS, OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITROSUM GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
AUG									
22...	--	--	--	--	--	--	--	--	--

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CYANIDE DIS-SOLVED (MG/L AS CN)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
AUG									
22...	--	--	40	--	--	--	--	--	--

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01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA

LOCATION.--Lat 40°01'41", long 75°13'44", Philadelphia County, Hydrologic Unit 02040203, at Green Lane Avenue Bridge, 5.5 mi (8.8 km) upstream from gaging station at Fairmount Dam, and 14.2 mi (22.3 km) upstream from mouth.

DRAINAGE AREA.--1,830 mi² (4,740 km²), at Fairmount Dam.

PERIOD OF RECORD.--November 1947 to January 1982. July to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: November 1947 to January 1982. July to September 30, 1982.

REMARKS.--Mean water discharges given are for station 01474500 Schuylkill River at Philadelphia (Fairmount Dam). Daily records do not include water diverted by the city of Philadelphia for municipal water supply. Unpublished records of temperature of sediment samples available in the district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATION: Maximum daily mean, 4,910 mg/L Dec. 30, 1948; minimum daily mean, 1 mg/L on many days.
SEDIMENT DISCHARGE: Maximum daily, 650,000 tons (590,000 tonnes) (estimated) Aug. 19, 1955; minimum daily, less than 0.05 ton (0.04 tonne) Sept. 2, 1966.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER-ATURE (DEG C)	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SEDI-MENT, SUS-PENDED (MG/L)	SED. SUSP. DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	FALL DIAM. % FINER THAN .008 MM
NOV							
16...	1025	9.0	13000	347	12100	46	61
26...	1140	8.0	10300	102	2850	73	86
29...	1050	.5	12000	132	4270	63	77
DEC							
05...	0955	5.0	8740	96	2260	67	81
13...	0830	8.5	40700	794	87300	41	54
19...	1050	.5	12000	132	4270	63	77
FEB							
04...	1155	3.0	5430	62	909	87	88
15...	1030	7.0	15700	770	32700	40	54
MAR							
29...	1200	5.0	14500	227	8860	40	53
APR							
05...	1220	10.0	36600	1220	121000	37	51
MAY							
04...	0935	14.5	15800	192	8200	42	54
JUL							
07...	1115	22.0	51500	1420	197000	47	64

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .031 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM
NOV							
16...	75	92	97	98	99	100	--
26...	92	96	97	98	99	99	100
29...	86	94	95	99	100	--	--
DEC							
05...	89	95	99	99	100	--	--
13...	67	78	84	88	93	97	100
19...	86	94	95	99	100	--	--
FEB							
04...	89	91	93	95	97	100	--
15...	73	88	94	97	99	100	--
MAR							
29...	75	90	96	98	99	100	--
APR							
05...	67	85	95	98	99	100	--
MAY							
04...	63	80	90	95	97	99	100
JUL							
07...	77	87	91	93	95	98	100

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) APRIL	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MAY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JUNE	SEDIMENT DISCHARGE (TONS/DAY)
1	7070	18	344	3910	14	148	13100	54	1910
2	6810	14	257	4010	12	130	9090	44	1080
3	6710	11	199	3650	10	99	7050	28	533
4	6290	40	679	4290	179	2070	6170	23	383
5	28000	850	64300	13600	164	6020	4800	17	220
6	25900	583	40800	8870	58	1390	4120	13	145
7	20100	185	10000	6780	26	476	3790	10	102
8	12500	76	2570	6330	15	256	3440	9	84
9	8770	43	1020	9140	58	1430	2990	9	73
10	7090	27	517	6980	33	622	2700	9	66
11	6220	17	285	5700	15	231	2580	8	56
12	5650	14	214	5210	11	155	2440	6	40
13	5130	16	222	4950	19	254	2330	7	44
14	4790	11	142	4400	11	131	2730	9	66
15	4800	9	117	4120	7	78	2390	7	45
16	7370	37	736	3760	6	61	2250	6	36
17	6910	37	690	3480	5	47	2000	6	32
18	5460	19	280	3160	5	43	2790	7	53
19	4950	15	200	3120	9	76	4890	20	264
20	4690	14	177	3140	10	85	3960	20	214
21	4330	16	187	3400	12	110	2630	16	114
22	4010	14	152	3900	11	116	2170	13	76
23	4270	11	127	3490	10	94	2010	10	54
24	4490	14	170	4360	14	165	2170	15	88
25	4090	14	155	3840	12	124	9470	118	3020
26	3710	10	100	3240	17	149	7900	66	1410
27	3370	11	100	5660	63	963	5160	30	418
28	3060	12	99	3980	57	613	4070	13	143
29	3970	16	172	15600	115	4840	2960	11	88
30	4230	20	228	43400	312	36600	2550	12	83
31	---	---	---	20100	97	5260	---	---	---
TOTAL	224740	---	125239	219570	---	62836	126700	---	10940

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JULY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) AUGUST	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) SEPTEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	14300	182	7030	2270	9	55	1630	12	59
2	15300	183	7560	2130	9	52	1300	7	25
3	6410	45	779	1980	9	48	1210	7	23
4	4980	20	269	2050	9	50	1850	9	45
5	4280	18	208	2430	12	79	2170	12	70
6	6390	40	690	2550	11	76	1620	8	35
7	38300	855	88400	2130	10	58	1120	8	24
8	14500	175	6850	2280	11	68	1040	8	22
9	8350	65	1470	2050	11	61	975	10	26
10	6390	38	656	2140	17	98	939	8	20
11	6280	33	560	4060	23	252	943	8	20
12	6280	41	695	4060	14	153	991	8	21
13	4500	18	219	4010	16	173	1070	3	8.7
14	3660	16	158	3060	14	116	990	6	16
15	3270	14	124	2400	9	58	1130	8	24
16	3070	11	91	2030	9	49	1170	9	28
17	3260	15	132	1810	10	49	1010	8	22
18	3190	12	103	1640	10	44	910	6	15
19	4100	13	144	1570	11	47	850	3	6.9
20	3300	10	89	1560	11	46	817	3	6.6
21	4060	33	362	1680	9	41	751	4	8.1
22	3760	51	518	1530	8	33	777	7	15
23	2930	22	174	1350	8	29	770	5	10
24	2560	14	97	1770	9	43	763	3	6.2
25	2370	13	83	1610	9	39	745	2	4.0
26	2200	11	65	1220	9	30	709	3	5.7
27	5360	52	753	1130	8	24	708	9	17
28	6620	72	1290	1050	7	20	977	6	16
29	3900	23	242	1030	7	19	973	5	13
30	3110	14	118	1010	8	22	939	4	10
31	2560	8	55	1310	23	81	---	---	---
TOTAL	199540	---	119984	62900	---	2013	32047	7	20

01473800 SCHUYLKILL RIVER AT MANAYUNK, PHILADELPHIA, PA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) OCTOBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) NOVEMBER	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) DECEMBER	SEDIMENT DISCHARGE (TONS/DAY)
1	345	3	2.8	711	6	12	6270	21	356
2	464	2	2.5	694	7	13	4780	12	155
3	540	3	4.4	708	7	13	4090	8	88
4	462	3	3.7	760	7	14	7590	49	1000
5	569	3	4.6	661	8	14	9130	87	2140
6	686	2	3.7	701	5	9.5	6110	22	363
7	700	3	5.7	718	5	9.7	7340	27	535
8	601	2	3.2	648	6	10	6550	21	371
9	544	3	4.4	628	6	10	5410	12	175
10	526	3	4.3	779	6	13	4520	9	110
11	552	3	4.5	1160	7	22	3940	8	85
12	959	4	10	1720	9	42	6380	50	861
13	1130	6	18	1960	8	42	37700	519	52800
14	1560	9	38	1490	6	24	39300	234	24800
15	1180	8	25	1680	44	200	26300	136	9660
16	935	6	15	9400	279	7080	15400	62	2580
17	743	4	8.0	7820	101	2130	11600	40	1250
18	645	5	8.7	4980	34	457	9610	33	856
19	736	7	14	3770	15	153	6940	25	468
20	1120	8	24	3180	11	94	5250	14	198
21	879	7	17	4940	82	1090	4550	11	135
22	585	6	9.5	6530	91	1600	8050	77	1670
23	753	8	16	4340	30	352	11200	90	2720
24	5830	73	1150	3320	14	125	6930	34	636
25	4190	45	509	7850	64	1360	4970	25	335
26	2450	22	146	10800	104	3030	4440	19	228
27	1580	11	47	6760	30	548	4000	16	173
28	1160	8	25	5220	15	211	5220	38	536
29	917	8	20	10300	85	2360	11400	139	4280
30	814	8	18	8300	41	919	6820	65	1200
31	779	8	17	---	---	---	4280	17	196
TOTAL	34934	---	2179.0	113528	---	21957.2	296070	---	110960

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) JANUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) FEBRUARY	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L) MARCH	SEDIMENT DISCHARGE (TONS/DAY)
1	3550	9	86	2240	6	36	5140	11	153
2	3340	12	108	1780	4	19	4180	9	102
3	3260	18	158	1840	2	9.9	3810	8	82
4	3010	10	81	5160	53	738	3690	6	60
5	2900	9	70	7330	82	1620	3760	5	51
6	3110	8	67	4700	36	457	5660	14	214
7	3100	7	59	3440	26	241	5080	14	192
8	3000	7	57	2680	11	80	4170	9	101
9	2770	7	52	2350	5	32	3700	8	80
10	2610	6	42	2300	4	25	3410	7	64
11	3130	8	68	2500	4	27	3310	6	54
12	2510	9	61	4420	19	227	3160	6	51
13	2210	10	60	4460	26	313	3440	5	46
14	2270	7	43	4490	136	1650	8710	71	1670
15	2190	5	30	17200	693	32200	7470	87	1750
16	2070	5	28	23100	258	16100	6560	47	832
17	1860	4	20	12500	60	2030	5810	20	314
18	2120	3	17	9560	37	955	4950	13	174
19	2100	2	11	8050	26	565	4530	7	86
20	1850	1	5.0	6460	18	314	4320	10	117
21	1480	1	4.0	5500	12	178	4410	10	119
22	1350	1	3.6	4760	7	90	6380	18	310
23	1300	1	3.5	4380	7	83	6090	19	312
24	1670	2	9.0	10200	107	2950	5270	12	171
25	2520	2	14	8290	74	1660	4810	8	104
26	4130	9	102	6510	25	439	4590	5	62
27	4710	12	153	5550	12	180	3840	7	73
28	4840	16	209	5680	12	184	4650	19	239
29	3660	15	148	6340	14	240	13400	193	6980
30	2870	12	93	---	---	---	11100	62	1860
31	3600	10	97	---	---	---	7930	21	450
TOTAL	85140	---	1959.1	183770	---	63642.9	167330	---	16873

01474000 WISSAHICKON CREEK AT MOUTH, PHILADELPHIA, PA

LOCATION.--Lat 40°00'54", long 75°12'24", Philadelphia County, Hydrologic Unit 02040203, on left bank 100 ft (30 m) upstream from dam at Ridge Ave., 750 ft (229 m) upstream from mouth, 1,000 ft (305 m) northwest of Gustine Lake in Philadelphia.

DRAINAGE AREA.--64.0 mi² (165.8 km²).

PERIOD OF RECORD.--June 1897 to September 1903, January 1905 to July 1906, October 1965 to current year. Records for 1971-74 published in WDR PA-81-1. Prior to October 1965 published as "near Philadelphia."

REVISED RECORDS.--WSP 1302: 1905.

GAGE.--Water-stage recorder, concrete control, and crest-stage gage. Datum of gage is 26.41 ft (8.050 m) National Geodetic Vertical Datum of 1929. Prior to October 1965, water-stage recorder at about same site and datum.

REMARKS.--Records good, except periods of ice effect which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--20 years, 105 ft³/s (2.974 m³/s), 22.20 in/yr (564 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,870 ft³/s (195 m³/s) June 29, 1973, gage height, 7.92 ft (2.414 m); minimum daily observed, 2.0 ft³/s (0.057 m³/s) July 18, 19, 1905.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) revised and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 13	2345	2150	60.9	4.77	1.454	Apr. 5	1245	*4070	115	*6.32	1.926
Dec. 22	1815	2300	65.1	4.91	1.497	May 30	0015	3240	91.8	5.69	1.734
Mar. 14	0530	2190	62.0	4.81	1.466	July 7	0715	2630	74.5	5.20	1.585

Minimum discharge, 16 ft³/s (0.45 m³/s) Oct. 10, gage height, 1.71 ft (0.521 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	28	74	84	79	113	183	89	222	103	57	36
2	31	28	67	74	74	101	163	80	177	72	54	33
3	27	30	80	66	77	97	152	85	152	57	54	50
4	27	44	616	57	366	92	164	668	135	54	56	133
5	29	31	166	56	146	134	2390	204	118	54	287	48
6	30	24	136	54	99	245	439	120	110	169	93	42
7	25	24	208	48	89	126	244	106	102	683	73	40
8	21	27	93	46	77	105	192	188	95	93	66	35
9	21	28	80	43	73	106	164	248	92	69	54	33
10	18	64	76	49	73	101	148	113	86	65	88	33
11	23	116	68	72	82	101	132	100	80	71	71	43
12	129	52	660	56	107	95	124	117	77	170	102	39
13	69	44	1390	55	97	238	118	113	75	64	89	39
14	121	37	674	49	101	1200	116	91	100	59	58	38
15	36	198	194	43	834	355	132	86	74	55	53	70
16	27	490	146	40	396	245	499	81	73	52	49	52
17	24	74	121	38	161	190	177	77	77	53	47	37
18	27	52	109	37	135	159	132	76	125	66	47	34
19	63	47	100	35	116	146	116	79	179	61	48	33
20	45	42	93	33	109	136	106	76	74	50	45	32
21	30	216	84	33	100	141	99	75	68	233	44	32
22	25	66	998	32	94	145	92	68	62	80	44	31
23	77	49	263	31	108	122	127	110	61	58	57	29
24	455	59	139	31	542	112	119	130	85	55	55	27
25	71	475	120	50	156	119	104	67	265	51	42	30
26	45	151	110	133	128	122	94	75	77	47	39	33
27	40	82	100	150	109	107	87	233	65	644	37	28
28	34	96	548	132	221	393	83	89	60	155	40	66
29	28	387	827	83	162	1150	187	843	58	74	40	48
30	27	94	99	76	---	450	98	2210	59	63	40	39
31	26	---	92	83	---	234	---	406	---	60	41	---
TOTAL	1680	3155	8531	1869	4911	7180	6981	7103	3083	3640	1970	1263
MEAN	54.2	105	275	60.3	169	232	233	229	103	117	63.5	42.1
MAX	455	490	1390	150	834	1200	2390	2210	265	683	287	133
MIN	18	24	67	31	73	92	83	67	58	47	37	27
CFSM	.85	1.64	4.30	.94	2.64	3.63	3.64	3.58	1.61	1.83	.99	.66
IN.	.98	1.83	4.96	1.09	2.85	4.17	4.06	4.13	1.79	2.12	1.15	.73

CAL YR 1983 TOTAL 52419 MEAN 144 MAX 2100 MIN 18 CFSM 2.25 IN. 30.47
WTR YR 1984 TOTAL 51366 MEAN 140 MAX 2390 MIN 18 CFSM 2.19 IN. 29.86

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA
(National stream-quality accounting network station)

LOCATION.--Lat 39°58'00", long 75°11'20", Philadelphia County, Hyrologic Unit 02040203, on right bank 150 ft (46 m) upstream from Fairmount Dam, 1,500 ft (457 m) upstream from Spring Garden Street Bridge, in Philadelphia, and 8.7 mi (14.0 km) upstream from mouth. Water-quality sampling site 1.6 mi (2.6 km) upstream.

DRAINAGE AREA.--1,893 mi² (4,903 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1931 to current year. Records for January 1898 to December 1912, published in WSP 35, 48, 65, 82, 97, 125, 166, 202, 214, 261, 301, 381 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1302: 1936(M). WSP 1432: 1945. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5.74 ft (1.750 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 25, 1956, water-stage recorder at site on right bank just upstream from Fairmount Dam at same datum. Nov. 26, 1956, to Oct. 6, 1966, water-stage recorder at site on left bank 40 ft (12 m) upstream from Fairmount Dam at same datum.

REMARKS.--Records good. Flow regulated by Still Creek Reservoir (station 01469200) since February 1933, Blue Marsh Reservoir (station 01470870) since April 1979, Green Lane Reservoir (station 01472200) since December 1956 and to some extent by Lake Ontelaunee, capacity 518,600,000 ft³ (14.7 hm³). Records of discharge do not include diversion above station by City of Philadelphia for municipal water supply.

AVERAGE DISCHARGE.--53 years, 2,972 ft³/s (84.17 m³/s), 21.32 in/yr (542 mm/yr), adjusted for diversion from October 1931 to September 1982.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 103,000 ft³/s (2,920 m³/s) June 23, 1972, gage height, 14.65 ft (4.465 m); no flow over dam at times; minimum daily, 0.6 ft³/s (0.02 m³/s) Sept. 2, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4, 1869, reached a stage of 17.0 ft (5.18 m), discharge, 135,000 ft³/s (3,820 m³/s), from rating extended above 46,000 ft³/s (1,300 m³/s). Flood of Mar. 1, 1902, reached a stage of 14.8 ft (4.511 m), discharge, 98,000 ft³/s (2,780 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 63,400 ft³/s (1,800 m³/s), July 7, gage height, 12.31 ft (3.752 m); minimum, 224 ft³/s (6.34 m³/s) Oct. 1, gage height 5.66 ft (1.725 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	345	711	6270	3550	2240	5140	7070	3910	13100	15400	2270	1830
2	464	694	4780	3340	1780	4180	6810	4010	9090	14200	2130	1300
3	540	708	4090	3260	1840	3810	6710	3650	7050	6410	1980	1210
4	462	760	7440	3010	5130	3690	6290	15200	6170	4980	2050	1850
5	569	661	9120	2900	7330	3760	28000	13600	4800	4280	2430	2170
6	686	701	6110	3110	4700	5660	26000	8870	4120	6390	2550	1620
7	700	718	7340	3100	3440	5080	20100	6780	3790	38400	2130	1120
8	601	648	6550	3000	2680	4170	12500	6330	3440	14400	2280	1040
9	544	628	5410	2770	2350	3700	8770	9140	2990	8350	2050	975
10	526	779	4520	2610	2300	3410	7090	6980	2700	6390	2140	939
11	552	1160	3940	3130	2500	3310	6220	5700	2580	6280	4060	943
12	959	1720	5990	2510	4420	3160	5650	5210	2440	6200	4060	991
13	1130	1960	38700	2210	4460	3440	5130	4950	2330	4500	4010	1070
14	1560	1490	39400	2270	4450	8750	4790	4400	2730	3660	3060	990
15	1160	1670	26300	2190	17100	7470	4800	4120	2390	3270	2400	1130
16	935	9490	15400	2070	23100	6560	7370	3760	2250	3070	2030	1170
17	743	7820	11600	1860	12500	5810	6910	3480	2000	3260	1810	1010
18	645	4980	9610	2120	9560	4950	5460	3150	2790	3190	1640	910
19	736	3770	6940	2100	8050	4530	4950	3120	4890	4100	1570	850
20	1120	3180	5250	1850	6460	4320	4690	3140	3960	3300	1560	817
21	879	5920	4550	1480	5500	4410	4330	3400	2630	4030	1680	751
22	585	6510	7980	1350	4760	6380	4010	3900	2170	3760	1530	777
23	753	4340	11300	1300	4380	6090	4270	3490	2010	2930	1350	770
24	5770	3320	6930	1670	10200	5270	4490	4360	2170	2560	1770	763
25	4190	7810	4970	2520	8290	4810	4090	3840	9430	2370	1610	745
26	2450	10700	4440	4180	6510	4590	3710	3240	7900	2200	1220	709
27	1580	6760	4000	4710	5550	3840	3370	5660	5160	5400	1130	708
28	1160	5220	5220	4840	5680	4550	3060	3980	4070	6620	1050	977
29	917	10300	11400	3660	6340	13500	3970	12600	2960	3900	1030	973
30	814	8300	6820	2870	---	11100	4230	43500	2550	3110	1010	939
31	779	---	4280	2600	---	7930	---	20200	---	2560	1310	---
TOTAL	34874	113428	296650	84140	183600	167370	224840	227680	126660	199470	62900	32047
MEAN	1125	3781	9569	2714	6331	5399	7495	7345	4222	6435	2029	1068
MAX	5770	10700	39400	4840	23100	13500	28000	43500	13100	38400	4060	2170
MIN	345	628	3940	1300	1780	3160	3060	3120	2000	2200	1010	708
†	254	226	256	269	264	254	257	252	285	269	279	255

CAL YR 1983 TOTAL 1458594 MEAN 3996 MAX 39400 MIN 230
WTR YR 1984 TOTAL 1753659 MEAN 4791 MAX 43500 MIN 345

† Diversion, equivalent in cubic feet per second, for municipal water supply, furnished by City of Philadelphia.

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1945 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to November 1980 (discontinued).
pH: January 1968 to November 1980 (discontinued).
WATER TEMPERATURES: October 1945 to November 1980 (discontinued).
DISSOLVED OXYGEN: January 1966 to November 1980 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3) (00900)
JAN 18...	1100	2080	456	7.8	2.0	756	3.0	14.2	4000	2900	160
MAR 07...	1230	5210	297	7.2	5.0	763	1.0	13.1	6400	--	100
JUN 14...	1300	2720	314	7.1	33.0	--	3.0	11.6	5100	1200	130
SEP 13...	1300	1170	432	7.0	24.0	787	2.8	10.8	2600	--	160

DATE	HARDNESS NONCARBONATE (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)
JAN 18...	79	38	15	28	3.0	78	69	39	.10	11
MAR 07...	54	26	9.2	16	2.4	49	41	24	<.10	9.1
JUN 14...	66	31	13	15	2.4	65	62	20	.10	6.8
SEP 13...	74	39	16	24	3.5	90	70	33	.20	7.8

DATE	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)
JAN 18...	273	250	.37	1530	3.6	.850	2.0	.280	.240	.200
MAR 07...	185	160	.25	2600	2.6	.410	1.2	.130	.090	.100
JUN 14...	247	190	.34	1810	2.3	<.010	.50	.310	.180	.130
SEP 13...	274	250	.37	866	3.0	.230	1.3	.360	.350	.350

01474500 SCHUYLKILL RIVER AT PHILADELPHIA, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	ALUMINUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYLLIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)
JAN 18...	20	11	47	<.5	3	<1	6	6	14	2
MAR 07...	<10	2	41	<.5	2	<1	<3	4	33	<1
JUN 14...	10	2	46	<.0	<1	<1	<3	2	10	4
SEP 13...	<10	2	49	<.0	<1	8	<3	9	14	6

DATE	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
JAN 18...	31	270	<.1	<10	50	<1	<1	190	7	54
MAR 07...	16	130	<.1	<10	20	<1	<1	130	<6	30
JUN 14...	6	4	.1	<10	4	<1	<1	160	<6	17
SEP 13...	5	28	<.1	<10	6	<1	<1	190	<6	14

01474505 SCHUYLKILL RIVER ABOVE PASSYUNK AVENUE AT PHILADELPHIA, PA

LOCATION.--Lat 39°55'18", long 75°12'16", Philadelphia County, Hydrologic Unit 02040203, on west face of Philadelphia Fire Department dock in the embayment off the main channel of the Schuylkill River on left bank 1,200 feet (370 m) upstream from Passyunk Avenue at Philadelphia.

DRAINAGE AREA.--1,900 mi² (4,920 km²).

PERIOD OF RECORD.--September 1978 to current year.

GAGE.--Water stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Corps of Engineers benchmark).

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 8.03 ft (2.448 m) Oct. 25, 1980; minimum, -5.50 ft (-1.676 m) Dec. 3, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum recorded elevation, 6.86 ft (2.091 m) Apr. 3; minimum recorded, -2.62 ft (-0.799 m) many days in Oct. and Nov.

Summaries of tide elevations during current year are as follows:

	Maximum elevation	High tide date	Minimum elevation	Low tide date	Mean high tide	Mean water level	Mean low tide
Oct.	5.87	25	- 2.61	29,30	4.79	1.72	- 1.61
Nov.	6.29	15	- 2.61	12,13,27	4.48	1.52	- 1.83
Dec.	6.63	4	- 2.81	24	4.41	1.73	- 1.28
Jan.	4.82	6	- 3.41	18	3.76	1.13	- 2.09
Feb.	5.68	17	- 2.60	1,2,6,7,8,9, 10,26,27,29	4.12	1.24	- 1.95
Mar.	6.08	29	- 2.60	1,2,3,4,9,12 13,24	4.16	1.50	- 1.85
Apr.	6.55	7	- 2.38	23	5.18	2.25	- 1.13
May	6.62	31	- 2.60	15,17	4.72	1.71	- 1.68
June	6.36	1	- 2.45	13	4.99	1.78	- 1.83
July	5.60	7	- 2.43	25	4.86	1.75	- 1.87
Aug.	5.75	26	- 2.45	31	4.84	1.71	- 1.89
Sept.	5.34	30	- 2.58	24,26,27	4.62	1.50	- 1.97

LAKES AND RESERVOIRS IN SCHUYLKILL RIVER BASIN

01469200 STILL CREEK RESERVOIR.--Lat 40°51'25", long 75°59'30", Schuylkill County, Hydrologic Unit 02040106, at dam on Still Creek, 1 mi (1.6 km) upstream from mouth and 2.3 mi (3.7 km) north of Hometown, Pa. DRAINAGE AREA, 8.5 mi^2 (22.0 km^2). PERIOD OF RECORD, January 1933 to current year. Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Panther Valley Co.)

Reservoir formed by earthfill dam, with ungated concrete spillway at elevation 1,182.00 ft (360.274 m). Storage began in February 1933. Capacity at elevation 1,182.00 ft (360.274 m) is 8,290 acre-ft (10.2 hm^3). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Borough of Tamaqua.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 8,570 acre-ft (10.6 hm^3) Oct. 15, 1955, elevation, 1,182.92 ft (360.554 m), but may have been greater during 1950 or 1951 water years; minimum (after first filling), 588 acre-ft (0.725 hm^3) Dec. 8, 1944, elevation, 1,136.70 ft (346.466 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 8,500 acre-ft (10.5 hm^3) Apr. 6, elevation, 1,182.7 ft (360.487 m); minimum, 6,940 acre-ft (8.56 hm^3) Nov. 13, elevation, 1,177.25 ft (358.826 m).

01470870 BLUE MARSH LAKE.--Lat 40°22'45", long 76°01'59", Berks County, Hydrologic Unit 02040203, at dam on Tulpehocken Creek, 0.8 mi (1.3 km) upstream from gaging station on Tulpehocken Creek, 1.0 mi (1.6 km) northeast of Blue Marsh, 1.9 mi (3.1 km) upstream from Reber's Bridge, and 5.1 mi (8.2 km) southeast of Bernville. DRAINAGE AREA, 175 mi^2 (453 km^2). PERIOD OF RECORD, April 1979 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

Reservoir formed by earthfill dam, with concrete ungated spillway at elevation 307.00 ft (93.574 m). Storage began April 23, 1979. Capacity at elevation 307.00 ft (93.574 m) is 50,000 acre-ft (61.6 hm^3). Dead storage is 3,000 acre-ft (3.70 hm^3). Reservoir is used for flood control, water supply, and recreation. Figures herein represent total contents. Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 39,480 acre-ft (48.7 hm^3) Apr. 17, 1983, elevation, 301.65 ft (91.943 m); minimum (after first filling), 16,700 acre-ft (20.6 hm^3) Mar. 26, 1984, elevation, 283.98 ft (86.557 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 33,000 acre-ft (40.7 hm^3) Dec. 14, elevation, 297.70 ft (90.739 m); minimum, 16,700 acre-ft (20.6 hm^3) Mar. 26, elevation, 283.98 ft (86.557 m).

01472200 GREEN LANE RESERVOIR.--Lat 40°20'30", long 75°28'45", Montgomery County, Hydrologic Unit 02040203, at dam on Perkiomen Creek, 0.4 mi (0.6 km) west of Green Lane and 2.1 mi (3.4 km) upstream from Unami Creek. DRAINAGE AREA, 70.9 mi^2 (183.6 km^2). PERIOD OF RECORD, December 1956 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Philadelphia Suburban Water Co.).

Reservoir formed by concrete, gravity-type dam, with ungated spillway at elevation 286.00 ft (87.173 m). Storage began December 21, 1956. Capacity at elevation 286.00 ft (87.173 m) is 13,430 acre-ft (16.6 hm^3). Reservoir is used for municipal water supply. Figures given herein represent total contents. Regulation is accomplished by valves on pipe through dam. Records furnished by Philadelphia Suburban Water Co.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 17,030 acre-ft (21.0 hm^3) June 23, 1972, elevation, 290.05 ft (88.407 m); minimum (after first filling), 1,270 acre-ft (1.57 hm^3) Aug. 25, 1957, elevation, 251.60 ft (76.688 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 15,340 acre-ft (18.9 hm^3) July 7, elevation, 288.15 ft (87.828 m); minimum, 10,550 acre-ft (13.0 hm^3) Oct. 12, elevation, 282.28 ft (86.039 m).

LAKES AND RESERVOIRS IN SCHUYLKILL RIVER BASIN

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01469200 Still Creek Reservoir			01470870 Blue Marsh Dam		
Sept. 30	1179.0	7430	--	290.16	23100	--
Oct. 31	1177.7	7080	- 5.7	209.17	18200	- 79.7
Nov. 30	1178.0	7150	+ 1.2	285.34	18000	- 3.4
Dec. 31	1182.0	8290	+ 18.5	285.58	18200	+ 3.3
CAL YR 1983	--	--	+ 0.3	--	--	+ 0.9
Jan. 31	1182.0	8290	0.0	285.12	17700	- 8.1
Feb. 29	1182.1	8320	+ 0.5	284.73	17400	- 5.2
Mar. 31	1182.1	8320	0.0	285.81	18400	+ 16.3
Apr. 30	1182.1	8320	0.0	290.10	23000	+ 77.3
May 31	1182.3	8380	+ 1.0	293.95	27800	+ 78.0
June 30	1182.3	8380	0.0	290.62	23600	- 70.5
July 31	1181.1	8020	- 5.9	289.90	22800	- 13.0
Aug. 31	1181.1	8020	0.0	290.19	23100	+ 4.9
Sept. 30	1180.2	7770	- 4.2	290.08	23000	- 1.7
WTR YR 1984	--	--	+ 0.5	--	--	- 0.1
	01472200 Green Lane Reservoir					
Sept. 30	282.60	10760	--			
Oct. 31	285.26	12770	+ 32.7			
Nov. 30	286.17	13580	+ 13.6			
Dec. 31	286.00	13430	- 2.4			
CAL YR 1983	--	--	+ 0.1			
Jan. 31	285.96	13400	- 0.5			
Feb. 29	286.12	13540	+ 2.4			
Mar. 31	286.24	13640	+ 1.6			
Apr. 30	286.05	13480	- 2.7			
May 31	286.47	13850	+ 6.0			
June 30	286.01	13440	- 6.9			
July 31	286.01	13440	0.0			
Aug. 31	285.97	13410	- 0.5			
Sept. 30	285.85	13300	- 1.8			
WTR YR 1984	--	--	+ 3.5			

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA

LOCATION.--Lat 39°52'45", long 75°12'11", Philadelphia County, Hydrologic Unit 02040202, water-quality recorder on right bank at outer end of L-shaped pier at Fort Mifflin, 0.4 mi (0.6 km) downstream from mouth of Schuylkill River, in Philadelphia.

DRAINAGE AREA.--10,000 mi² (25,900 km²), approximately.

PERIOD OF RECORD.--July 1970 to June 1976, February 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1970 to December 1971, February 1981 to current year.
WATER TEMPERATURES: June 1972 to September 1976, February 1981 to current year.

INSTRUMENTATION.--Water-quality monitor July 1970 to June 1976, February 1981 to current year.

REMARKS.--Station not operated Dec. 2 to Mar. 1. Other interruptions in the record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,230 micromhos Oct. 27, 1981; minimum, 90 micromhos Apr. 11,,17, 19, 29, 1983, April 29, 1984.
WATER TEMPERATURES: Maximum, 31.0°C Aug. 4-6, 13, 1975; minimum, 0.5°C Feb. 5, 1981.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	410	340	365	290	180	218			
2	---	---	---	420	340	368	280	190	---			
3	---	---	---	420	360	379	---	---	---			
4	---	---	---	420	340	373	---	---	---			
5	---	---	---	440	340	381	---	---	---			
6	---	---	---	450	370	398	---	---	---			
7	710	450	---	450	370	403	---	---	---			
8	790	420	550	570	380	410	---	---	---			
9	760	470	551	440	370	406	---	---	---			
10	800	460	543	480	370	406	---	---	---			
11	790	490	571	450	380	412	---	---	---			
12	830	510	585	480	340	391	---	---	---			
13	820	500	566	470	340	384	---	---	---			
14	630	500	550	450	360	403	---	---	---			
15	710	480	550	420	360	392	---	---	---			
16	690	470	522	520	310	414	---	---	---			
17	650	470	526	500	220	328	---	---	---			
18	590	420	509	350	200	264	---	---	---			
19	610	420	504	320	270	291	---	---	---			
20	620	470	520	320	220	284	---	---	---			
21	630	450	524	---	---	---	---	---	---			
22	650	420	514	---	---	---	---	---	---			
23	760	460	524	390	260	---	---	---	---			
24	620	390	514	310	250	267	---	---	---			
25	520	400	460	300	220	270	---	---	---			
26	500	400	440	280	190	241	---	---	---			
27	470	340	410	250	180	208	---	---	---			
28	440	340	392	290	200	225	---	---	---			
29	390	330	360	310	200	240	---	---	---			
30	400	320	351	270	180	213	---	---	---			
31	410	330	363	---	---	---	---	---	---			
MONTH	830	320	496	570	180	338	290	180	218			

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1							---	---	---	250	170	197
2							---	---	---	230	160	192
3							---	---	---	270	170	201
4							---	---	---	300	180	232
5							---	---	---	220	140	168
6							---	---	---	210	150	175
7							---	---	---	240	160	184
8							---	---	---	230	170	190
9							---	---	---	260	130	195
10							---	---	---	240	150	194
11							---	---	---	280	140	183
12							---	---	---	250	150	197
13							250	130	---	250	150	209
14							320	140	197	270	150	205
15							270	140	186	220	170	189
16							280	140	213	---	---	---
17							280	150	221	260	160	---
18							240	160	202	260	160	202
19							260	170	209	280	170	202
20							270	150	203	280	180	206
21							310	140	199	270	180	213
22							330	150	211	310	190	243
23							280	160	215	290	160	225
24							290	150	217	250	160	195
25							290	140	220	240	180	---
26							300	150	208	---	---	---
27							280	150	199	---	---	---
28							280	160	211	---	---	---
29							280	160	205	---	---	---
30							280	170	208	---	---	---
31							---	---	---	---	---	---
MONTH							330	130	207	310	130	200

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	190	100	---	320	210	255	260	230	252	390	310	335
2	210	90	160	260	180	216	270	230	255	380	300	332
3	230	100	167	220	180	203	290	240	263	360	310	336
4	230	110	168	220	200	207	310	250	272	430	320	351
5	230	110	164	230	200	217	370	260	288	450	320	366
6	220	130	171	230	200	217	390	270	314	440	330	366
7	240	120	167	240	210	---	370	270	306	410	320	349
8	260	140	181	---	---	---	360	270	304	380	320	335
9	240	140	178	---	---	---	370	270	308	370	320	332
10	230	140	180	---	---	---	370	270	---	370	320	332
11	230	150	179	---	---	---	---	---	---	390	320	343
12	250	150	188	---	---	---	---	---	---	380	320	341
13	260	160	191	---	---	---	---	---	---	360	330	339
14	260	170	202	---	---	---	---	---	---	370	330	343
15	260	170	201	---	---	---	---	---	---	380	330	346
16	380	180	264	---	---	---	---	---	---	390	330	344
17	290	180	225	---	---	---	---	---	---	420	330	354
18	320	190	228	---	---	---	---	---	---	440	330	358
19	350	200	271	---	---	---	---	---	---	430	350	368
20	280	180	233	---	---	---	400	280	---	440	350	366
21	330	190	229	---	---	---	390	290	311	490	350	387
22	250	200	227	---	---	---	370	290	310	500	350	391
23	240	210	225	---	---	---	370	290	307	530	350	431
24	240	200	225	270	240	250	390	290	316	500	360	412
25	360	210	267	270	230	251	370	290	317	520	370	425
26	330	210	246	290	240	253	350	290	314	530	380	441
27	250	200	225	360	240	280	340	300	312	510	370	457
28	240	200	225	340	240	278	330	300	309	540	380	418
29	250	210	233	270	230	255	330	300	311	530	380	426
30	250	230	237	260	230	250	350	290	314	530	390	430
31	---	---	---	270	230	250	370	300	322	---	---	---
MONTH	380	90	209	360	180	242	400	230	300	540	300	372

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA-Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	---	---	---	---	---	---						
2	---	---	---	---	---	---						
3	---	---	---	---	---	---						
4	---	---	---	---	---	---						
5	---	---	---	---	---	---						
6	---	---	---	---	---	---						
7	---	---	---	---	---	---						
8	---	---	---	---	---	---						
9	---	---	---	---	---	---						
10	---	---	---	---	---	---						
11	---	---	---	---	---	---						
12	---	---	---	---	---	---						
13	---	---	---	---	---	---						
14	---	---	---	---	---	---						
15	---	---	---	---	---	---						
16	---	---	---	---	---	---						
17	---	---	---	---	---	---						
18	---	---	---	---	---	---						
19	---	---	---	---	---	---						
20	---	---	---	---	---	---						
21	---	---	---	---	---	---						
22	17.5	17.0	17.5	---	---	---						
23	17.5	17.0	17.0	---	---	---						
24	18.0	16.0	17.0	11.0	10.5	11.0						
25	17.0	15.5	16.0	---	---	---						
26	16.5	15.5	16.0	---	---	---						
27	16.0	15.0	15.5	---	---	---						
28	15.5	15.0	15.0	---	---	---						
29	15.0	14.5	15.0	---	---	---						
30	---	---	---	---	---	---						
31	---	---	---	---	---	---						
MONTH	18.0	14.5	16.0	11.0	10.5	11.0						

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1							---	---	---	15.0	13.0	14.0
2							---	---	---	15.5	13.5	14.0
3							---	---	---	16.0	14.0	14.5
4							---	---	---	16.5	14.0	15.0
5							---	---	---	15.5	13.5	14.5
6							---	---	---	16.0	14.5	15.0
7							---	---	---	16.0	14.5	15.5
8							---	---	---	15.5	14.5	15.0
9							---	---	---	15.5	14.5	15.0
10							---	---	---	15.0	14.5	14.5
11							---	---	---	15.5	14.0	15.0
12							---	---	---	16.0	15.0	15.5
13							13.0	10.5	---	16.5	15.5	16.0
14							13.0	11.0	12.0	16.5	16.0	16.5
15							13.0	11.0	12.0	16.5	16.0	---
16							12.5	11.0	11.5	---	---	---
17							12.0	11.0	11.5	16.5	15.5	---
18							12.0	11.5	11.5	16.0	15.5	15.5
19							12.5	11.5	12.0	16.5	15.5	16.0
20							13.0	11.5	12.0	17.0	16.0	16.5
21							12.5	11.0	11.5	17.5	16.5	17.0
22							12.5	11.0	11.5	19.5	17.0	17.5
23							12.5	11.0	12.0	19.5	18.0	18.5
24							12.0	11.0	11.5	20.0	18.0	19.0
25							11.5	11.0	11.0	21.5	18.0	19.5
26							11.5	10.5	11.0	22.0	19.5	20.5
27							12.5	11.0	11.5	22.0	19.5	20.5
28							13.0	11.5	12.0	21.0	19.5	20.0
29							14.0	12.0	13.0	21.0	19.5	20.5
30							15.0	12.5	13.5	20.5	16.0	18.0
31							---	---	---	18.5	15.0	16.0
MONTH							15.0	10.5	12.0	22.0	13.0	16.5

01474703 DELAWARE RIVER AT FORT MIFFLIN AT PHILADELPHIA, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	15.5	14.5	15.0	---	---	---	---	---	---	25.5	25.0	25.5
2	15.5	14.5	15.0	---	---	---	---	---	---	25.5	25.0	25.0
3	16.5	15.0	15.5	---	---	---	---	---	---	25.5	25.0	25.5
4	17.0	15.5	16.0	25.0	23.5	24.5	---	---	---	25.5	24.5	25.0
5	17.5	16.0	16.5	25.0	24.0	24.5	---	---	---	25.0	24.5	25.0
6	18.5	16.5	17.5	25.0	24.0	24.5	---	---	---	24.5	24.0	24.5
7	19.5	17.5	18.5	24.5	24.0	---	---	---	---	24.5	23.5	24.0
8	21.0	18.5	19.5	---	---	---	---	---	---	24.5	23.5	23.5
9	21.5	19.5	20.5	---	---	---	---	---	---	24.0	23.5	23.5
10	23.0	20.0	21.0	---	---	---	---	---	---	24.0	23.5	23.5
11	23.5	20.5	22.0	---	---	---	---	---	---	24.0	23.0	23.5
12	24.0	22.0	23.0	---	---	---	---	---	---	24.0	23.5	23.5
13	24.5	22.5	23.5	---	---	---	---	---	---	24.0	23.0	23.5
14	25.0	23.0	24.0	---	---	---	---	---	---	24.0	23.5	23.5
15	25.0	23.5	24.5	---	---	---	---	---	---	23.5	23.0	23.5
16	25.0	23.5	24.0	---	---	---	---	---	---	23.0	22.5	23.0
17	24.5	23.5	24.0	---	---	---	---	---	---	23.0	22.0	22.5
18	24.5	22.0	24.0	---	---	---	---	---	---	23.0	22.0	22.5
19	24.5	23.0	24.0	---	---	---	---	---	---	22.5	22.0	22.0
20	24.5	20.0	23.5	---	---	---	27.0	26.5	---	23.0	22.0	22.0
21	25.0	23.5	24.0	---	---	---	27.0	26.0	26.5	22.5	22.0	22.0
22	25.0	24.0	24.5	---	---	---	27.0	26.0	26.0	22.5	22.0	22.0
23	24.5	24.0	24.5	---	---	---	26.0	26.0	26.0	22.5	22.0	22.0
24	24.5	24.0	24.0	---	---	---	26.0	25.5	26.0	22.5	22.0	22.5
25	24.5	23.5	24.0	---	---	---	26.0	25.5	25.5	23.0	22.5	22.5
26	24.0	23.0	23.5	---	---	---	26.0	25.0	25.5	23.0	22.0	22.5
27	24.0	23.0	23.5	---	---	---	26.0	25.0	25.5	23.0	21.5	21.5
28	24.0	19.0	22.0	---	---	---	26.0	25.0	25.5	22.0	20.5	21.0
29	24.0	20.0	23.0	---	---	---	25.5	25.0	25.5	21.5	20.0	20.5
30	---	---	---	---	---	---	26.0	25.0	25.5	20.5	20.0	20.0
31	---	---	---	---	---	---	26.0	25.5	25.5	---	---	---
MONTH	25.0	14.5	21.5	25.0	23.5	24.5	27.0	25.0	25.5	25.5	20.0	23.0

01475300 DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA

LOCATION.--Lat 40°01'21", long 75°25'20", Chester County, Hydrologic Unit 02040202, on left bank 125 ft (38 m) upstream from bridge on Waterloo Road, 2 mi (3.2 km) south of Devon, and 2.5 mi (4.0 km) northwest of Newtown Square.

DRAINAGE AREA.--5.15 mi^2 (13.3 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 310 ft (94 m), from topographic map.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--12 years, 9.83 ft^3/s (0.278 m^3/s), 25.92 in/yr (658 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft^3/s (51.0 m^3/s) Sept. 6, 1979, gage height, 6.71 ft (2.045 m); minimum, 0.74 ft^3/s (0.021 m^3/s) Aug. 26, 1983, gage height, 1.18 ft (0.360 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s (7.08 m^3/s) revised and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 12	2330	419	11.9	4.17	1.271
Dec. 22	1130	393	11.1	4.08	1.244
Apr. 5	0645	*819	23.2	*5.25	1.600
May 29	1545	810	22.9	5.23	1.594
July 27	0830	301	8.52	3.74	1.140

Minimum discharge, 1.1 ft^3/s (0.031 m^3/s) Sept. 27, gage height, 1.25 ft (0.381 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	3.0	5.1	6.8	5.0	7.9	12	8.1	17	14	4.1	2.3
2	2.0	2.9	4.5	6.7	4.9	7.7	11	7.7	15	8.2	4.0	2.4
3	1.7	3.0	5.9	6.6	10	7.4	11	9.9	15	7.2	4.0	7.3
4	1.6	4.0	31	6.6	16	7.2	18	53	13	6.8	3.9	5.5
5	1.6	3.3	7.8	6.6	8.4	15	243	13	13	8.4	5.7	2.9
6	1.6	3.2	9.9	6.6	6.9	8.7	22	10	12	11	7.7	2.5
7	1.6	3.3	8.3	6.4	5.9	8.0	17	10	11	17	7.3	2.4
8	1.6	3.0	5.8	6.0	5.4	7.8	15	23	11	8.0	6.8	2.3
9	1.6	3.0	5.3	5.6	5.3	7.5	14	15	9.8	7.0	4.5	2.3
10	1.6	9.4	5.2	7.7	6.4	7.3	13	10	9.6	8.0	3.4	2.3
11	1.6	7.9	4.8	7.3	9.7	7.1	13	9.7	9.4	11	4.5	2.3
12	8.2	4.5	72	5.8	9.0	28	12	10	9.1	8.7	4.9	2.3
13	2.8	3.6	86	5.8	8.3	31	12	9.1	9.2	6.6	3.7	2.2
14	5.9	3.3	25	5.9	19	18	11	8.7	11	6.1	3.3	2.3
15	3.0	26	12	5.6	52	16	12	8.5	8.8	5.8	3.2	4.4
16	1.6	16	9.9	5.4	15	13	22	8.2	8.4	6.1	3.0	2.6
17	1.6	4.8	8.7	5.1	10	11	13	7.9	9.9	6.5	2.8	2.3
18	1.6	3.9	8.0	5.0	9.6	10	13	7.9	14	7.4	2.8	2.2
19	5.7	3.6	7.6	4.8	8.7	9.9	11	9.5	25	5.9	3.2	2.2
20	2.5	3.8	6.8	4.7	8.2	9.6	10	7.7	9.0	5.4	3.0	2.1
21	2.1	21	6.4	4.5	7.7	17	9.7	7.4	8.4	18	2.7	2.1
22	1.9	5.0	83	4.4	7.2	11	9.1	7.0	7.9	7.5	3.1	2.0
23	13	4.3	13	4.3	22	9.4	15	14	7.6	6.6	3.8	2.0
24	21	5.6	9.6	4.3	20	8.8	12	8.2	22	5.9	2.9	2.0
25	5.7	26	8.1	5.8	9.8	11	10	6.7	18	5.6	2.7	3.7
26	3.7	7.1	7.4	8.3	8.4	9.7	10	10	8.9	5.3	2.5	2.3
27	3.1	5.4	7.1	8.7	8.2	8.7	9.7	8.6	8.1	42	2.6	1.5
28	2.8	12	36	6.9	14	31	7.1	13	7.6	7.1	2.4	4.1
29	2.7	11	12	5.9	9.0	45	12	151	7.3	5.1	2.4	3.2
30	2.7	5.8	8.1	5.6	---	19	9.0	86	7.3	4.8	2.4	2.4
31	2.8	---	7.0	5.2	---	14	---	23	---	4.3	2.4	---
TOTAL	112.6	218.7	527.3	184.9	330.0	422.7	608.6	581.8	343.3	277.3	115.7	82.4
MEAN	3.63	7.29	17.0	5.96	11.4	13.6	20.3	18.8	11.4	8.95	3.73	2.75
MAX	21	26	86	8.7	52	45	243	151	25	42	7.7	7.3
MIN	1.6	2.9	4.5	4.3	4.9	7.1	7.1	6.7	7.3	4.3	2.4	1.5
CFSM	.70	1.42	3.30	1.16	2.21	2.64	3.94	3.65	2.21	1.74	.72	.53
IN.	.81	1.58	3.81	1.34	2.38	3.05	4.40	4.20	2.48	2.00	.84	.60

CAL YR 1983 TOTAL 3776.0 MEAN 10.3 MAX 212 MIN 1.1 CFSM 2.00 IN. 27.28
WTR YR 1984 TOTAL 3805.3 MEAN 10.4 MAX 243 MIN 1.5 CFSM 2.02 IN. 27.49

01475300 DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1970 to current year.

WATER QUALITY DATA, OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
OCT 27...	1430	--	235	7.5	11.0	10.0	1.3	9.5	99	31
MAR 20...	1135	10	250	7.8	--	9.0	--	--	87	29
APR 26...	0800	9.7	250	7.1	--	9.0	--	--	--	--
MAY 22...	0815	7.2	250	7.8	--	17.0	--	--	--	--
JUN 12...	0855	7.2	250	7.8	--	19.0	--	--	94	31
22...	1055	6.0	240	7.6	--	19.0	--	--	240	180
JUL 17...	1355	4.5	250	7.6	--	23.5	--	--	--	--
AUG 21...	0810	2.7	260	7.2	--	17.5	--	--	--	--
SEP 18...	0820	2.2	245	7.3	--	13.0	--	--	93	31

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
OCT 27...	24	9.5	10	2.2	68	23	19	14	153
MAR 20...	20	8.9	14	1.4	58	27	18	--	152
APR 26...	--	--	--	--	60	--	21	--	168
MAY 22...	--	--	--	--	6	--	20	--	179
JUN 12...	22	9.0	12	1.6	6	26	21	--	166
22...	85	7.9	9.9	.80	64	25	19	--	327
JUL 17...	--	--	--	--	68	--	20	--	171
AUG 21...	--	--	--	--	70	--	21	--	156
SEP 18...	22	9.3	11	1.7	62	19	2	--	145

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT 27...	140	<.010	1.6	<.010	--	.50	2.1	.030
MAR 20...	--	.010	2.2	<.010	--	--	--	--
APR 26...	--	.020	2.0	.070	--	--	--	--
MAY 22...	--	.030	2.1	.170	--	--	--	--
JUN 12...	--	.020	2.2	.110	--	--	--	--
22...	--	.020	2.0	.020	--	--	--	--
JUL 17...	--	.020	1.9	.050	--	--	--	--
AUG 21...	--	.010	1.8	.040	--	--	--	--
SEP 18...	--	<.010	1.8	.050	--	--	--	--

01475300 DARBY CREEK AT WATERLOO MILLS NEAR DEVON, PA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	BORON, DISSOLVED (UG/L AS B)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	CYANIDE DISSOLVED (MG/L AS CN)	METHYLENE BLUE ACTIVE SUBSTANCE (MG/L)
OCT									
27...	.020	.010	10	--	110	--	18	--	--
MAR									
20...	--	<.010	200	--	37	5	21	<.01	.04
APR									
26...	--	<.010	--	--	--	--	--	--	--
MAY									
22...	--	.030	--	--	--	--	--	--	--
JUN									
12...	--	.010	--	--	22	--	9	--	.03
22...	--	.020	--	--	12	--	20	--	<.01
JUL									
17...	--	.020	--	--	--	--	--	--	--
AUG									
21...	--	.010	--	--	--	--	--	--	--
SEP									
18...	--	.020	--	<20	52	--	16	--	.04

01475510 DARBY CREEK NEAR DARBY, PA

LOCATION.--Lat 39°55'44", long 75°16'22", Delaware County, Hydrologic Unit 02040202, on right bank 20 ft (6 m) upstream from Providence Road Bridge, 1.1 mi (1.8 km) northwest of Upper Darby, 2.3 mi (3.7 km) upstream from Cobbs Creek, and 8.4 mi (13.5 km) upstream from mouth.

DRAINAGE AREA.--37.4 mi² (96.9 km²).

PERIOD OF RECORD.--February 1964 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 19.41 ft (5.916 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except for periods of ice and missing record, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--20 years, 68.4 ft³/s (1.937 m³/s), 24.85 in/yr (631 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,920 ft³/s (168 m³/s) Aug. 23, 1974, gage height, 10.23 ft (3.118 m), from rating curve extended above 920 ft³/s (26 m³/s) on basis of step-backwater analysis; minimum, 8.2 ft³/s (0.23 m³/s) Sept. 12, 13, 1980; minimum gage height, 1.16 ft (0.354 m) Sept. 2, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,200 ft³/s (34.0 m³/s) revised and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 22	1445	1470	41.6	4.92	1.500	July 7	0700	4080	116 *	8.10	2.469
Dec. 28	1645	1260	35.7	4.56	1.390	July 27	0800	1360	38.5	4.74	1.445
Apr. 5	0845	2570	72.8	6.45	1.966	Aug. 9	1700	3000	85.0	6.97	2.124
May 29	---	3000	85.0	---	---	Aug. 10	1915	1270	36.0	4.59	1.399
July 1	1030	1250	35.4	4.55	1.387						

Minimum daily discharge, 14 ft³/s (0.40 m³/s) Oct. 7, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	23	42	58	44	62	99	78	118	189	50	26
2	30	23	39	55	45	59	92	72	102	57	50	26
3	18	24	54	56	59	57	89	81	93	49	50	121
4	17	36	185	57	178	55	136	289	92	47	49	49
5	23	24	74	57	75	100	1210	108	90	78	65	35
6	31	23	79	56	59	94	202	86	84	112	44	31
7	14	22	82	54	52	64	147	83	78	511	44	30
8	16	23	50	53	47	59	128	198	72	64	42	30
9	15	23	46	51	45	58	117	150	68	53	261	29
10	14	106	44	60	48	57	110	85	67	53	174	25
11	16	87	42	71	62	56	104	78	66	54	52	25
12	145	36	181	53	67	56	99	81	64	53	66	25
13	90	28	443	45	61	227	95	74	150	49	46	24
14	150	26	257	40	63	375	92	71	260	48	40	26
15	19	260	97	36	344	142	110	69	53	48	37	49
16	20	216	79	33	137	142	248	67	50	48	35	26
17	21	47	69	30	80	104	116	66	59	51	34	23
18	19	36	64	28	74	87	120	65	131	55	33	22
19	55	33	61	26	64	81	97	78	202	54	37	22
20	26	30	57	25	61	77	87	65	60	51	34	22
21	22	201	55	24	58	118	83	69	56	83	34	22
22	21	45	547	24	55	89	80	74	53	63	31	22
23	132	36	128	23	87	75	125	107	50	52	36	21
24	279	47	83	23	215	71	104	70	143	48	35	21
25	56	67	72	60	75	89	89	54	167	46	29	22
26	32	61	66	79	64	82	82	72	60	45	29	23
27	28	44	62	76	60	69	79	62	55	394	29	21
28	26	67	429	63	131	218	75	150	54	76	29	52
29	25	119	112	49	76	439	148	900	49	58	29	31
30	24	49	67	47	---	172	86	560	62	53	30	23
31	24	---	63	44	---	115	---	149	---	51	30	---
TOTAL	1426	1862	3729	1456	2486	3549	4449	4211	2708	2693	1584	924
MEAN	46.0	62.1	120	47.0	85.7	114	148	136	90.3	86.9	51.1	30.8
MAX	279	260	547	79	344	439	1210	900	260	511	261	121
MIN	14	22	39	23	44	55	75	54	49	45	29	21
CFSM	1.23	1.66	3.21	1.26	2.29	3.05	3.96	3.64	2.41	2.32	1.37	.82
IN.	1.42	1.85	3.71	1.45	2.47	3.53	4.43	4.19	2.69	2.68	1.58	.92

CAL YR 1983 TOTAL 29192 MEAN 80.0 MAX 874 MIN 13 CFSM 2.14 IN. 29.04
WTR YR 1984 TOTAL 31077 MEAN 84.9 MAX 1210 MIN 14 CFSM 2.27 IN. 30.91

01475550 COBBS CREEK AT DARBY, PA

LOCATION.--Lat 39°55'02", long 75°14'52", Delaware County, Hydrologic Unit 02040202, on right bank 60 ft (18 m) upstream from dam, 200 ft (61 m) upstream from bridge on Woodland Avenue, at Darby, and 1.1 mi (1.8 km) upstream from mouth.

DRAINAGE AREA.--22.0 mi² (57.0 km²).

PERIOD OF RECORD.--February 1964 to current year.

REVISED RECORDS.--WDR PA-75-1: 1974(M).

GAGE.--Water-stage recorder and masonry control. Datum of gage is 11.93 ft (3.636 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 29, 1964, nonrecording gage at same site and datum.

REMARKS.--Records fair, except periods of ice, missing record, or intake lag which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--20 years, 31.4 ft³/s (0.889 m³/s), 19.38 in/yr (492 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,490 ft³/s (127 m³/s) June 29, 1973, gage height, 10 98 ft (3.347 m), from rating curve extended above 850 ft³/s (24.1 m³/s) on basis of computation of peak flow through culvert; maximum gage height, 12.85 ft (3.917 m) Aug. 23, 1974, backwater from storage tank; minimum, no flow on many days in 1964-66.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,800 ft³/s (51.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 5	0445	2040	57.8	5.08	1.548	July 7	0945	*3940	112	*9.03	2.752
June 14	0315	2300	65.1	5.46	1.664						

Minimum discharge, 6.7 ft³/s (0.20 m³/s) Oct. 10, gage height, 1.35 ft (0.411 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.6	16	19	15	19	27	21	31	109	13	13
2	31	9.6	15	19	16	18	26	21	28	20	13	13
3	11	9.6	28	19	25	22	26	38	26	16	12	235
4	8.2	28	265	19	82	21	95	74	24	14	12	48
5	16	10	23	19	21	68	781	23	21	52	32	18
6	19	9.4	59	19	18	33	61	21	20	109	17	18
7	7.5	9.4	28	18	16	21	38	22	20	682	24	17
8	7.6	9.3	19	17	15	20	33	221	20	32	27	17
9	8.3	9.8	17	17	15	19	31	39	20	23	200	15
10	7.1	126	16	28	15	19	30	23	20	23	120	17
11	7.9	38	15	26	18	19	29	22	19	79	70	17
12	106	14	277	16	18	19	27	25	18	35	30	16
13	35	11	407	14	16	256	27	21	34	17	50	14
14	99	9.9	80	13	19	175	27	21	216	16	27	17
15	10	322	28	12	218	38	45	20	18	15	20	42
16	9.6	102	23	11	37	32	166	20	17	15	17	17
17	11	19	21	10	21	27	36	20	26	15	17	14
18	10	15	21	9.6	22	26	72	20	98	16	14	14
19	39	15	20	9.0	18	24	32	28	167	21	21	17
20	13	12	19	8.6	18	23	26	20	20	16	16	17
21	11	162	18	8.3	18	36	25	28	18	15	14	16
22	11	16	358	8.0	18	23	25	30	17	45	15	16
23	138	13	32	7.8	59	21	88	35	16	31	18	13
24	184	42	22	7.7	104	21	32	23	116	24	17	15
25	30	139	20	14	20	47	26	18	64	18	14	17
26	15	21	19	32	18	25	23	24	17	17	14	17
27	12	17	18	28	18	21	23	21	15	16	14	16
28	11	46	332	22	80	219	23	90	14	23	13	52
29	10	39	33	18	22	259	90	450	13	40	13	19
30	10	17	22	17	---	44	23	130	28	29	15	13
31	9.9	---	20	16	---	30	---	35	---	13	13	---
TOTAL	909.1	1300.6	2291	502.0	1000	1645	2013	1604	1181	1596	912	790
MEAN	29.3	43.4	73.9	16.2	34.5	53.1	67.1	51.7	39.4	51.5	29.4	26.3
MAX	184	322	407	32	218	259	781	450	216	682	200	235
MIN	7.1	9.3	15	7.7	15	18	23	18	13	13	12	13
CFSM	1.33	1.97	3.36	.74	1.57	2.41	3.05	2.35	1.79	2.34	1.34	1.20
IN.	1.54	2.20	3.87	.85	1.69	2.78	3.40	2.71	2.00	2.70	1.54	1.34

CAL YR 1983 TOTAL 16136.8 MEAN 44.2 MAX 644 MIN 6.3 CFSM 2.01 IN. 27.29
WTR YR 1984 TOTAL 15743.7 MEAN 43.0 MAX 781 MIN 7.1 CFSM 1.95 IN. 26.62

01475850 CRUM CREEK NEAR NEWTOWN SQUARE, PA

LOCATION.--Lat 39°58'35", long 75°26'13", Delaware County, Hydrologic Unit 02040202, at Castle Rock Bridge on State Highway 3, 0.6 mi (1.0 km) upstream from Preston Run, 0.8 mi (1.3 km) upstream from Geist Reservoir and 2.0 mi (3.2 km) west of Newtown Square.

DRAINAGE AREA.--15.8 mi² (40.9 km²).

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1932, 1949, 1970-1977, and annual maximum 1977-1981. October 1981 to current year.

GAGE.--Water-stage recorder. Datum of gage is 225.75 ft (68.809 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except periods of ice which are fair. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft³/s (33.7 m³/s) March 21, 1983, gage height, 7.08 ft (2.158 m), from rating curve extended above 830 ft³/s (23.5 m³/s); minimum, 3.8 ft³/s (0.11 m³/s) Oct. 13, 1981, minimum gage height, 2.13 ft (0.649 m), Aug. 10, 11, 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 13	0045	736	20.8	5.91	1.801	Apr. 5	0730	*1370	38.8	*7.91	2.411
Dec. 22	1400	701	19.9	5.80	1.768	May 29	1800	1320	37.4	7.77	2.368

Minimum discharge, 7.8 ft³/s (0.22 m³/s) Oct. 7, 8, gage height, 2.21 ft (0.674 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	13	19	23	17	29	38	31	45	42	18	12
2	9.6	13	17	22	18	28	35	29	38	26	18	12
3	8.7	13	21	22	25	28	34	30	37	23	18	20
4	8.5	15	107	23	107	27	45	194	35	21	17	31
5	8.5	14	34	23	35	44	535	53	33	22	19	16
6	8.3	14	30	22	27	50	87	38	30	34	18	14
7	7.9	14	37	21	22	32	62	36	27	59	17	12
8	8.1	13	22	20	19	29	53	73	27	23	16	12
9	8.3	13	20	19	18	28	48	69	26	20	16	12
10	8.2	22	20	23	23	27	45	37	25	21	15	12
11	8.2	31	18	28	32	26	42	33	25	25	26	12
12	19	18	155	20	33	26	41	35	23	27	25	12
13	13	15	309	20	30	52	39	32	23	19	18	12
14	16	13	101	21	38	139	39	30	32	18	17	12
15	9.9	54	40	20	218	70	43	29	23	17	17	19
16	9.1	92	32	18	70	57	109	28	22	22	15	13
17	9.0	22	29	18	36	43	51	27	24	28	15	12
18	9.0	17	27	17	32	34	44	27	42	23	14	12
19	17	16	26	16	28	32	40	33	90	19	15	11
20	12	15	23	16	27	30	36	28	26	18	15	11
21	9.7	67	22	15	25	49	33	26	24	58	14	10
22	9.4	21	241	15	23	36	32	25	22	26	13	9.8
23	26	17	49	14	29	30	59	40	21	23	15	9.7
24	75	18	31	14	117	28	46	33	61	20	15	9.8
25	21	98	28	18	39	31	37	25	61	18	14	10
26	15	29	26	25	32	33	33	26	27	17	13	10
27	12	20	25	39	30	27	31	34	24	111	13	10
28	12	31	114	29	50	97	30	34	23	30	12	15
29	12	57	51	21	37	168	48	342	22	22	13	14
30	12	22	26	20	---	74	33	279	23	20	13	11
31	13	---	23	18	---	47	---	70	---	19	13	---
TOTAL	424.6	817	1723	640	1237	1451	1848	1826	961	871	497	388.3
MEAN	13.7	27.2	55.6	20.6	42.7	46.8	61.6	58.9	32.0	28.1	16.0	12.9
MAX	75	98	309	39	218	168	535	342	90	111	26	31
MIN	7.9	13	17	14	17	26	30	25	21	17	12	9.7
CFSM	.87	1.72	3.52	1.30	2.70	2.96	3.90	3.73	2.03	1.78	1.01	.82
IN.	1.00	1.92	4.06	1.51	2.91	3.42	4.35	4.30	2.26	2.05	1.17	.91

CAL YR 1983 TOTAL 11388.2 MEAN 31.2 MAX 393 MIN 5.3 CFSM 1.97 IN. 26.81
WTR YR 1984 TOTAL 12683.9 MEAN 34.7 MAX 535 MIN 7.9 CFSM 2.20 IN. 29.86

01477000 CHESTER CREEK NEAR CHESTER, PA

LOCATION.--Lat 39°52'08", long 75°24'31", Delaware County, Hydrologic Unit 02040202, on right bank 30 ft (9 m) downstream from Dutton Mill Bridge and 3 mi (5 km) northwest of Chester.

DRAINAGE AREA.--61.1 mi^2 (158.2 km^2).

PERIOD OF RECORD.--August 1931 to current year. Monthly discharges only for some periods, published in WSP 1302.

REVISED RECORDS.--WDR PA-72-1: 1971.

GAGE.--Water-stage recorder. Datum of gage is 23.41 ft (7.135 m) Penn Central Railroad datum. Prior to June 27, 1966, water-stage recorder at site 50 ft (15 m) upstream and June 28, 1966, to Oct. 4, 1967, nonrecording gage 150 ft (46 m) upstream, all at same datum.

REMARKS.--Records good, except period of questionable gage height, Jan. 10 to March 21, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--53 years, 88.8 ft^3/s (2.515 m^3/s), 19.74 in/yr (501 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,000 ft^3/s (595 m^3/s) Sept. 13, 1971, gage height, 24.59 ft (7.495 m), from floodmark, from rating curve extended above 2,400 ft^3/s (68.0 m^3/s) on basis of contracted-opening measurement at gage height 13.57 ft (4.136 m) and slope-area measurement of peak flow; minimum, 0.3 ft^3/s (0.008 m^3/s) Aug. 7, 1934, gage height, 0.28 ft (0.085 m); minimum daily, 6.5 ft^3/s (0.18 m^3/s) Sept. 25, 1941.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft^3/s (39.6 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 12	2400	2170	61.5	7.86	2.396	May 29	1615	2050	58.1	7.66	2.335
Dec. 22	1230	2110	59.8	7.76	2.365	July 7	1000	2280	64.6	8.06	2.457
Apr. 5	0745	*3880	110	*10.49	3.197						

Minimum discharge, 33 ft^3/s (0.93 m^3/s) Oct. 10, gage height, 2.64 ft (0.805 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	46	83	106	98	118	165	144	183	235	96	49
2	45	44	75	102	87	110	154	132	153	135	93	48
3	39	46	96	102	81	106	148	136	145	101	93	71
4	38	66	421	102	124	101	195	554	134	92	97	169
5	37	48	165	102	423	164	1580	216	124	86	88	72
6	42	45	136	102	155	180	356	160	118	243	85	60
7	37	45	160	98	119	127	240	157	115	510	83	56
8	36	46	97	94	96	116	205	311	110	149	88	53
9	36	44	88	90	85	115	188	317	105	106	78	51
10	37	100	85	98	87	110	180	167	99	99	79	51
11	36	157	78	137	104	105	174	149	116	254	87	54
12	104	82	521	98	122	105	169	153	109	147	99	52
13	72	62	1300	88	113	570	165	141	96	100	90	48
14	110	56	461	82	119	331	165	133	195	90	80	65
15	44	259	192	78	722	224	183	128	102	85	73	123
16	41	428	149	74	369	167	378	124	94	85	64	62
17	41	103	130	70	172	147	225	121	106	360	58	52
18	41	74	118	66	145	140	179	120	347	135	56	52
19	88	64	112	64	126	141	165	132	358	112	99	51
20	53	62	101	62	118	190	154	119	131	90	75	50
21	43	335	94	60	109	263	145	119	106	395	63	47
22	41	97	864	58	103	166	138	113	96	219	62	44
23	140	76	268	56	129	136	271	187	92	137	70	44
24	392	86	151	55	526	125	213	157	206	114	67	46
25	122	398	107	90	163	146	172	116	404	98	58	45
26	75	142	105	146	129	153	149	108	120	93	55	47
27	60	92	100	179	117	126	141	116	101	452	55	43
28	51	107	435	214	205	392	136	129	94	202	56	80
29	47	221	263	200	152	731	240	775	91	121	55	70
30	44	98	129	107	---	308	158	964	93	110	55	50
31	46	---	108	93	---	191	---	289	---	102	53	---
TOTAL	2077	3529	7192	3073	5098	6104	7131	6687	4343	5257	2310	1805
MEAN	67.0	118	232	99.1	176	197	238	216	145	170	74.5	60.2
MAX	392	428	1300	214	722	731	1580	964	404	510	99	169
MIN	36	44	75	55	81	101	136	108	91	85	53	43
CFSM	1.10	1.93	3.80	1.62	2.88	3.22	3.90	3.54	2.37	2.78	1.22	.99
IN.	1.26	2.15	4.38	1.87	3.10	3.72	4.34	4.07	2.64	3.20	1.41	1.10

CAL YR 1983 TOTAL 50245 MEAN 138 MAX 1300 MIN 32 CFSM 2.26 IN. 30.59
WTR YR 1984 TOTAL 54606 MEAN 149 MAX 1580 MIN 36 CFSM 2.44 IN. 33.25

01477050 DELAWARE RIVER AT CHESTER, PA

LOCATION.--Lat 39°50'33", long 75°21'28", Delaware County, Hydrologic Unit 02040202, in the pumping house of Scott Paper Company.

DRAINAGE AREA.--10,300 mi² (26,700 km²).

PERIOD OF RECORD.--December 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: January 1968 to current year.
WATER TEMPERATURES: December 1961 to current year.
DISSOLVED OXYGEN: December 1961 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1961.

REMARKS.--Prior to April 1981, sampling site was located at (latitude 39°50'12", longitude 75°22'00") auxiliary tidal-gaging station at the end of Reynolds Aluminum Company pier, 0.5 mi (0.8 km) downstream from Chester Creek in Chester. Station not operated Dec. 2 to Mar. 30. Other interruptions in the record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 5,900 micromhos Oct. 7, 1965; minimum, 103 micromhos June 2, 1984.
ph: Maximum, 8.7 Sept. 13, 14, 1971 and Oct. 16, 1979; minimum 5.5 Dec. 10, 11, 1969.
WATER TEMPERATURES: Maximum, 33.0°C July 21, 1977; minimum, 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 13.5 mg/L Apr. 20, 1979, minimum, 0.0 mg/L on many days.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	2210	785	1230	1260	550	798	264	250	257			
2	2040	835	1220	1340	550	853	262	245	253			
3	1960	815	1180	1580	600	941	---	---	---			
4	2110	865	1260	1500	555	912	---	---	---			
5	2110	895	1330	1830	605	986	---	---	---			
6	2250	875	1400	1770	645	1040	---	---	---			
7	2200	905	1430	1570	630	949	---	---	---			
8	2600	975	1510	1530	630	927	---	---	---			
9	2450	1000	1510	1430	625	908	---	---	---			
10	2960	1020	1660	1940	640	1020	---	---	---			
11	3440	1160	1860	1600	670	996	---	---	---			
12	3590	1270	2030	850	490	666	---	---	---			
13	2810	1120	1780	1240	475	715	---	---	---			
14	2230	895	1490	1340	500	801	---	---	---			
15	1890	855	1260	1620	535	877	---	---	---			
16	2490	850	1330	1240	445	646	---	---	---			
17	2390	980	1450	680	390	467	---	---	---			
18	2290	1010	1430	509	365	436	---	---	---			
19	2260	955	1440	503	359	429						
20	2560	1050	1650	511	361	430	---	---	---			
21	2590	1060	1670	539	354	420	---	---	---			
22	2550	1090	1650	443	345	387	---	---	---			
23	2920	1060	1700	399	321	358	---	---	---			
24	2360	840	1410	373	311	341	---	---	---			
25	2180	810	1310	345	292	315	---	---	---			
26	1680	805	1200	326	282	300	---	---	---			
27	1380	650	957	298	279	289	---	---	---			
28	1310	595	890	296	263	284	---	---	---			
29	900	535	718	289	256	271	---	---	---			
30	1270	510	761	268	257	261	---	---	---			
31	1280	545	815	---	---	---	---	---	---			
MONTH	3590	510	1370	1940	256	634	264	245	255			

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	234	201	216	187	160	173
2				---	---	---	232	203	220	205	175	186
3				---	---	---	234	202	217	222	190	208
4				---	---	---	233	198	211	222	202	211
5				---	---	---	217	149	187	239	202	220
6				---	---	---	225	155	183	222	193	207
7				---	---	---	185	156	172	203	188	195
8				---	---	---	177	133	152	199	185	193
9				---	---	---	719	131	145	195	185	190
10				---	---	---	171	130	158	198	187	192
11				---	---	---	174	126	154	191	183	188
12				---	---	---	163	142	151	191	175	183
13				---	---	---	162	140	151	199	175	181
14				---	---	---	170	145	158	190	177	183
15				---	---	---	174	149	163	195	179	186
16				---	---	---	176	156	168	200	184	192
17				---	---	---	189	160	173	204	189	197
18				---	---	---	196	169	182	207	191	198
19				---	---	---	194	175	184	203	186	195
20				---	---	---	194	172	184	195	182	189
21				---	---	---	192	172	180	194	183	187
22				---	---	---	190	1601	176	222	184	190
23				---	---	---	182	166	174	201	187	191
24				---	---	---	175	159	167	197	189	193
25				---	---	---	191	156	168	201	177	190
26				---	---	---	200	149	171	192	177	183
27				---	---	---	183	155	168	187	180	183
28				---	---	---	177	158	169	193	181	186
29				---	---	---	175	154	167	192	155	183
30				247	218	---	170	160	165	178	137	156
31				248	210	226	---	---	---	150	111	135
MONTH				248	210	226	234	126	174	239	111	189

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	149	108	121	296	283	291	284	267	274	439	326	367
2	133	103	116	304	285	293	283	269	273	599	333	395
3	133	106	118	293	271	283	252	161	268	584	343	412
4	134	113	122	279	262	272	273	261	267	550	327	407
5	139	117	126	278	267	272	272	265	267	533	339	402
6	140	123	130	272	262	266	275	265	268	536	343	400
7	143	125	133	273	231	251	272	263	269	493	352	402
8	156	120	143	244	174	191	283	265	273	592	356	430
9	165	147	155	188	170	178	282	266	274	608	365	441
10	173	150	163	197	172	184	278	260	273	671	371	463
11	178	155	169	202	177	193	276	253	265	593	372	460
12	184	160	175	212	182	198	276	263	270	614	371	464
13	188	165	179	212	187	205	292	267	277	686	385	501
14	193	173	183	217	201	209	295	274	283	706	392	514
15	222	176	200	221	203	211	299	278	288	679	391	510
16	235	201	219	223	207	213	300	282	290	798	396	517
17	242	207	225	222	205	214	300	285	292	688	392	510
18	258	212	230	226	210	218	303	288	295	778	401	518
19	242	218	232	236	212	226	306	288	296	761	407	529
20	251	229	240	248	227	238	302	289	295	824	408	539
21	267	234	250	247	231	237	303	291	295	940	410	533
22	272	243	259	252	234	240	313	294	300	988	423	589
23	279	251	265	258	239	248	310	297	304	940	428	602
24	283	255	270	267	245	256	308	296	303	933	410	573
25	277	255	270	268	249	260	311	297	303	900	410	598
26	301	267	282	269	249	260	320	296	307	1080	415	646
27	303	273	291	273	251	260	330	297	310	1340	425	678
28	308	279	295	277	255	263	361	300	319	1550	460	823
29	303	289	295	282	258	270	377	303	325	1690	485	892
30	302	289	294	284	262	273	398	307	336	1690	540	923
31	---	---	---	282	268	274	432	315	351	---	---	---
MONTH	308	103	205	304	170	240	1432	253	291	1690	326	1535

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.2	6.9	7.0	7.0	6.8	6.9	7.1	7.1	7.1			
2	7.2	6.9	7.0	7.0	6.8	6.9	7.1	7.0	7.1			
3	7.1	6.8	7.0	7.0	6.8	6.9	---	---	---			
4	7.1	6.8	6.9	7.0	6.7	6.9	---	---	---			
5	7.1	6.8	6.9	7.0	6.8	6.9	---	---	---			
6	7.1	6.8	6.9	7.0	6.8	6.9	---	---	---			
7	7.0	6.8	6.9	7.0	6.8	6.9	---	---	---			
8	7.0	6.8	6.9	7.0	6.8	6.9	---	---	---			
9	7.0	6.7	6.9	7.0	6.8	6.9	---	---	---			
10	7.1	6.8	6.9	7.1	6.8	6.9	---	---	---			
11	7.1	6.8	7.0	7.0	6.9	6.9	---	---	---			
12	7.2	6.9	7.1	7.0	6.9	6.9	---	---	---			
13	7.1	6.9	7.0	7.1	6.9	7.0	---	---	---			
14	7.1	6.8	7.0	7.1	6.9	7.0	---	---	---			
15	7.1	6.8	6.9	7.2	7.0	7.0	---	---	---			
16	7.1	6.8	6.9	7.1	6.9	7.0	---	---	---			
17	7.1	6.8	6.9	7.1	7.0	7.0	---	---	---			
18	7.1	6.8	6.9	7.1	7.0	7.1	---	---	---			
19	7.0	6.8	6.9	7.1	7.0	7.1	---	---	---			
20	7.1	6.8	7.0	7.1	7.0	7.0	---	---	---			
21	7.1	6.9	7.0	7.0	7.0	7.0	---	---	---			
22	7.1	6.9	7.0	7.0	7.0	7.0	---	---	---			
23	7.1	6.9	7.0	7.0	7.0	7.0	---	---	---			
24	7.1	6.8	7.0	7.0	7.0	7.0	---	---	---			
25	7.1	6.8	6.9	7.0	7.0	7.0	---	---	---			
26	7.0	6.8	6.9	7.1	7.0	7.0	---	---	---			
27	7.0	6.8	6.9	7.1	7.0	7.0	---	---	---			
28	7.0	6.8	6.9	7.0	7.0	7.0	---	---	---			
29	7.0	6.8	6.9	7.0	7.0	7.0	---	---	---			
30	7.0	6.9	6.9	7.1	7.0	7.0	---	---	---			
31	7.0	6.8	6.9	---	---	---	---	---	---			
MONTH	7.2	6.7	6.9	7.2	6.7	7.0	7.1	7.0	7.1			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	6.9	6.8	6.9	6.7	6.6	6.6
2				---	---	---	6.8	6.8	6.8	6.7	6.6	6.6
3				---	---	---	6.9	6.8	6.8	6.7	6.6	6.6
4				---	---	---	6.8	6.8	6.8	6.7	6.6	6.6
5				---	---	---	6.8	6.6	6.7	6.8	6.6	6.7
6				---	---	---	6.8	6.7	6.7	6.7	6.6	6.7
7				---	---	---	6.8	6.7	6.7	6.6	6.6	6.6
8				---	---	---	6.8	6.7	6.7	6.7	6.6	6.6
9				---	---	---	6.7	6.6	6.7	6.7	6.6	6.7
10				---	---	---	6.7	6.6	6.6	6.7	6.6	6.7
11				---	---	---	6.6	6.6	6.6	6.6	6.6	6.6
12				---	---	---	6.6	6.6	6.6	6.6	6.5	6.6
13				---	---	---	6.6	6.5	6.6	6.6	6.5	6.5
14				---	---	---	6.6	6.5	6.6	6.6	6.5	6.5
15				---	---	---	6.7	6.6	6.6	6.5	6.5	6.5
16				---	---	---	6.6	6.6	6.6	6.5	6.5	6.5
17				---	---	---	6.6	6.6	6.6	6.6	6.5	6.5
18				---	---	---	6.6	6.6	6.6	6.6	6.5	6.5
19				---	---	---	6.6	6.6	6.6	6.5	6.5	6.5
20				---	---	---	6.6	6.6	6.6	6.5	6.5	6.5
21				---	---	---	6.7	6.6	6.6	6.5	6.5	6.5
22				---	---	---	6.7	6.6	6.7	6.5	6.5	6.5
23				---	---	---	6.7	6.6	6.6	6.6	6.5	6.5
24				---	---	---	6.6	6.6	6.6	6.6	6.5	6.5
25				---	---	---	6.7	6.6	6.6	6.6	6.5	6.5
26				---	---	---	6.7	6.6	6.6	6.7	6.6	6.6
27				---	---	---	6.6	6.6	6.6	6.6	6.6	6.6
28				---	---	---	6.6	6.6	6.6	6.6	6.5	6.5
29				---	---	---	6.6	6.5	6.6	6.5	6.5	6.5
30				7.0	6.9	---	6.6	6.6	6.5	6.5	6.4	6.5
31				6.9	6.9	6.9	---	---	---	6.5	6.4	6.5
MONTH				7.0	6.9	6.9	6.9	6.5	6.7	6.8	6.4	6.6

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.6	6.4	6.5	6.5	6.5	6.5	6.7	6.6	6.6	6.8	6.7	6.7
2	6.6	6.4	6.5	6.6	6.4	6.5	6.7	6.6	6.6	6.8	6.7	6.7
3	6.5	6.4	6.5	6.6	6.5	6.5	6.6	6.6	6.6	6.8	6.7	6.7
4	6.5	6.4	6.5	6.5	6.5	6.5	6.6	6.6	6.6	6.8	6.7	6.7
5	6.5	6.4	6.4	6.6	6.5	6.5	6.7	6.6	6.6	6.8	6.7	6.7
6	6.4	6.4	6.4	6.6	6.5	6.6	6.7	6.6	6.6	6.8	6.7	6.7
7	6.4	6.4	6.4	6.6	6.6	6.6	6.8	6.6	6.7	6.8	6.7	6.7
8	6.4	6.3	6.3	6.6	6.5	6.5	6.9	6.7	6.8	6.9	6.7	6.8
9	6.3	6.3	6.3	6.5	6.4	6.4	6.9	6.7	6.8	6.9	6.7	6.8
10	6.3	6.3	6.3	6.5	6.4	6.5	6.8	6.7	6.8	6.9	6.7	6.8
11	6.3	6.3	6.3	6.5	6.4	6.5	6.7	6.6	6.7	6.9	6.7	6.8
12	6.3	6.2	6.3	6.5	6.5	6.5	6.7	6.7	6.7	6.9	6.7	6.8
13	6.4	6.3	6.3	6.5	6.4	6.5	6.8	6.7	6.7	6.9	6.7	6.8
14	6.4	6.3	6.3	6.5	6.4	6.4	6.7	6.7	6.7	6.9	6.7	6.8
15	6.4	6.3	6.3	6.5	6.4	6.4	6.8	6.7	6.7	6.9	6.7	6.8
16	6.4	6.3	6.4	6.5	6.4	6.5	6.8	6.7	6.7	6.9	6.8	6.8
17	6.4	6.4	6.4	6.5	6.4	6.5	6.8	6.7	6.7	6.9	6.8	6.8
18	6.5	6.3	6.4	6.5	6.4	6.5	6.8	6.7	6.7	6.9	6.8	6.8
19	6.4	6.3	6.3	6.5	6.4	6.5	6.8	6.7	6.8	6.9	6.8	6.8
20	6.3	6.3	6.3	6.5	6.4	6.5	6.8	6.7	6.8	7.0	6.8	6.8
21	6.3	6.2	6.3	6.5	6.5	6.5	6.8	6.7	6.8	7.0	6.8	6.8
22	6.3	6.3	6.3	6.6	6.5	6.5	6.8	6.7	6.8	7.0	6.8	6.9
23	6.4	6.3	6.3	6.6	6.5	6.5	6.8	6.7	6.8	7.0	6.8	6.9
24	6.5	6.3	6.4	6.6	6.5	6.5	6.8	6.7	6.7	7.0	6.7	6.9
25	6.5	6.4	6.5	6.6	6.5	6.5	6.8	6.7	6.8	7.0	6.7	6.8
26	6.6	6.4	6.5	6.6	6.5	6.5	6.8	6.7	6.8	7.0	6.7	6.8
27	6.6	6.4	6.5	6.6	6.6	6.6	6.8	6.7	6.7	7.0	6.8	6.9
28	6.6	6.4	6.5	6.6	6.6	6.6	6.8	6.7	6.8	7.1	6.8	6.9
29	6.6	6.5	6.5	6.7	6.6	6.6	6.8	6.7	6.8	7.1	6.8	7.0
30	6.5	6.5	6.5	6.6	6.6	6.6	6.8	6.7	6.7	7.1	6.9	7.0
31	---	---	---	6.7	6.6	6.6	6.8	6.7	6.7	---	---	---
MONTH	6.6	6.2	6.4	6.7	6.4	6.5	6.9	6.6	6.7	7.1	6.7	6.8

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.5	20.0	20.5	15.0	14.0	14.5	9.5	9.0	9.5			
2	21.0	20.5	20.5	15.0	14.0	14.5	9.5	8.5	9.0			
3	21.5	20.5	21.0	15.5	14.5	15.0	---	---	---			
4	21.5	20.5	21.0	14.5	14.0	14.5	---	---	---			
5	22.0	21.0	21.5	14.0	13.5	14.0	---	---	---			
6	21.5	21.0	21.0	13.5	13.0	13.5	---	---	---			
7	21.0	20.5	21.0	13.5	13.0	13.0	---	---	---			
8	21.0	20.5	20.5	13.5	13.0	13.0	---	---	---			
9	21.0	20.5	20.5	13.5	13.0	13.0	---	---	---			
10	20.5	20.0	20.5	13.5	13.0	13.0	---	---	---			
11	20.0	19.5	19.5	13.5	12.5	13.0	---	---	---			
12	20.0	19.5	19.5	12.5	11.5	12.5	---	---	---			
13	20.5	19.5	20.0	12.0	11.5	12.0	---	---	---			
14	20.5	20.0	20.0	12.0	11.0	11.5	---	---	---			
15	20.0	19.0	19.5	12.0	11.0	11.5	---	---	---			
16	19.5	19.0	19.0	11.5	11.0	11.5	---	---	---			
17	19.5	19.0	19.0	11.5	10.5	11.0	---	---	---			
18	19.5	19.0	19.0	11.0	10.0	10.5	---	---	---			
19	19.0	18.5	19.0	11.0	10.0	10.5	---	---	---			
20	18.5	18.0	18.0	11.0	10.5	10.5	---	---	---			
21	18.0	17.0	17.5	11.5	11.0	11.0	---	---	---			
22	17.5	16.5	17.0	11.5	11.0	11.0	---	---	---			
23	17.0	16.0	16.5	11.0	10.5	11.0	---	---	---			
24	16.5	16.0	16.5	11.0	10.5	11.0	---	---	---			
25	16.5	16.0	16.5	11.0	10.0	10.5	---	---	---			
26	16.5	16.0	16.0	10.0	9.5	10.0	---	---	---			
27	16.0	15.5	16.0	10.0	9.5	10.0	---	---	---			
28	16.0	15.5	15.5	10.5	9.5	10.0	---	---	---			
29	16.0	15.0	15.5	10.5	10.0	10.0	---	---	---			
30	15.0	14.5	14.5	10.0	9.0	9.5	---	---	---			
31	15.0	14.0	14.5	---	---	---	---	---	---			
MONTH	22.0	14.0	18.5	15.5	9.0	12.0	9.5	8.5	9.5			

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1				---	---	---	7.5	6.5	7.0	14.0	13.0	13.5
2				---	---	---	8.5	7.0	7.5	14.5	13.5	13.5
3				---	---	---	9.0	7.5	8.5	14.0	13.5	14.0
4				---	---	---	9.0	8.0	8.5	15.0	13.5	14.5
5				---	---	---	10.5	9.0	9.5	15.0	14.0	14.5
6				---	---	---	10.0	9.0	9.5	15.0	14.5	15.0
7				---	---	---	10.0	9.0	9.5	15.5	14.5	15.0
8				---	---	---	9.0	8.5	9.0	16.0	15.0	15.5
9				---	---	---	9.5	8.5	9.0	15.5	15.0	15.5
10				---	---	---	10.0	8.5	9.0	15.5	14.5	15.0
11				---	---	---	10.0	9.0	9.5	16.0	14.5	15.5
12				---	---	---	10.5	9.5	10.0	16.0	15.0	15.5
13				---	---	---	11.0	9.5	10.5	16.5	15.0	15.5
14				---	---	---	10.5	10.0	10.5	16.5	15.5	16.0
15				---	---	---	10.5	10.0	10.5	16.0	15.5	15.5
16				---	---	---	11.0	10.0	10.5	16.0	15.0	15.5
17				---	---	---	12.0	10.5	11.0	15.5	15.0	15.5
18				---	---	---	12.0	11.0	11.5	15.5	15.0	15.0
19				---	---	---	12.0	11.5	12.0	15.5	15.0	15.0
20				---	---	---	12.0	11.5	12.0	16.5	15.5	16.0
21				---	---	---	12.0	11.5	12.0	17.0	16.0	16.5
22				---	---	---	12.0	11.5	11.5	18.0	16.5	17.0
23				---	---	---	11.5	11.0	11.5	18.5	17.5	18.0
24				---	---	---	11.5	11.0	11.5	18.5	17.5	18.0
25				---	---	---	11.5	11.0	11.5	19.5	18.0	18.5
26				---	---	---	12.5	11.0	11.5	20.0	18.5	19.5
27				---	---	---	13.5	12.0	12.5	20.0	19.0	19.5
28				---	---	---	13.0	12.0	12.5	20.0	19.5	19.5
29				---	---	---	13.5	12.5	13.0	20.0	19.5	19.5
30				7.5	7.0	---	14.0	13.0	13.0	19.5	19.5	19.0
31				7.5	6.5	7.0						
MONTH				7.5	6.5	70	14.0	6.5	10.5	20.0	13.0	16.5

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	16.5	15.0	16.0	25.0	24.0	24.5	26.0	25.0	25.5	26.0	25.5	26.0
2	16.0	15.0	15.5	25.5	24.5	24.5	26.5	25.5	26.0	26.0	25.5	25.5
3	16.0	15.0	15.5	25.0	24.5	24.5	26.5	25.5	26.0	26.0	25.5	25.5
4	17.0	15.5	16.0	25.5	24.5	25.0	26.5	26.0	26.5	26.0	25.0	25.5
5	17.5	16.0	16.5	25.5	25.0	25.5	26.5	26.0	26.5	25.5	25.0	25.0
6	18.0	17.0	17.5	25.5	25.0	25.5	27.0	26.0	26.5	25.0	24.0	24.5
7	19.0	17.5	18.0	25.5	24.5	25.0	27.5	26.5	27.0	24.5	23.5	24.0
8	20.0	18.5	19.0	24.5	22.5	23.0	28.0	26.5	27.0	24.5	23.5	24.0
9	21.0	19.0	20.0	23.5	22.5	23.0	28.0	27.0	27.5	24.5	23.5	24.0
10	22.0	20.0	21.0	23.5	23.0	23.0	28.0	27.0	27.5	24.5	23.5	24.0
11	23.0	21.0	22.0	24.5	23.0	23.5	27.5	26.5	27.0	25.0	24.0	24.0
12	23.5	21.5	22.5	24.5	23.0	24.0	27.5	26.5	27.0	25.0	24.0	24.5
13	24.5	22.5	23.0	25.0	23.5	24.0	28.0	26.5	27.0	25.0	24.0	24.5
14	24.5	23.0	24.0	25.5	24.0	24.5	28.0	27.0	27.5	25.0	24.0	24.5
15	24.5	23.5	24.0	25.5	24.5	25.0	28.0	27.0	27.5	24.5	23.5	2.40
16	24.5	23.5	23.5	26.0	25.0	25.0	28.5	27.0	27.5	23.5	23.0	23.5
17	24.0	23.5	23.5	26.0	25.0	25.5	28.0	27.5	27.5	23.5	22.5	23.0
18	24.0	23.0	23.5	25.5	25.0	25.5	27.5	27.5	27.5	23.0	22.5	22.5
19	24.5	23.0	24.0	25.0	25.0	25.0	27.5	27.0	27.0	23.0	22.5	22.5
20	24.5	23.5	24.0	26.0	25.0	25.0	27.0	26.5	27.0	23.5	22.5	22.5
21	25.0	23.5	24.5	25.5	25.0	25.0	27.0	26.0	26.5	23.5	22.5	23.0
22	25.0	24.0	24.5	25.5	24.5	25.0	27.0	26.0	26.5	23.5	22.5	22.5
23	25.0	24.5	24.5	26.0	25.0	25.5	27.0	26.0	26.5	23.5	22.5	23.0
24	25.0	24.0	24.5	26.5	25.5	26.0	26.5	25.5	26.0	24.0	22.5	23.0
25	25.0	24.0	24.5	26.5	26.0	26.0	26.5	25.5	26.0	24.0	23.0	23.5
26	25.0	24.0	24.5	27.0	25.5	26.0	26.0	25.0	25.5	23.5	22.5	23.0
27	25.5	24.0	24.5	26.5	25.5	26.0	26.5	25.5	26.0	23.0	22.0	22.5
28	25.5	24.5	24.5	25.5	25.0	25.5	26.5	25.5	26.0	22.0	20.5	21.5
29	25.5	24.5	25.0	25.5	25.0	25.0	26.5	26.0	26.0	21.0	20.5	20.5
30	25.0	24.5	25.0	25.5	24.5	25.0	27.0	25.5	26.0	20.5	20.0	20.0
31	---	---	---	26.0	25.0	25.0	26.5	26.0	26.0	---	---	---
MONTH	25.5	15.0	22.0	27.0	22.5	25.0	28.5	25.0	26.5	26.0	20.0	23.5

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.9	5.6	6.2	5.9	4.8	5.4	7.4	7.0	7.2			
2	6.8	5.4	6.1	6.0	4.6	5.4	7.3	7.0	7.2			
3	6.7	5.1	5.9	5.9	4.8	5.4	---	---	---			
4	6.7	4.8	5.7	5.9	4.5	5.3	---	---	---			
5	6.4	4.4	5.5	6.0	4.8	5.3	---	---	---			
6	6.3	4.4	5.5	6.1	4.9	5.5	---	---	---			
7	6.1	4.1	5.3	6.1	5.1	5.6	---	---	---			
8	5.9	4.2	5.2	6.0	4.8	5.5	---	---	---			
9	5.7	4.0	5.0	5.7	4.6	5.2	---	---	---			
10	6.1	4.4	5.3	6.1	4.7	5.3	---	---	---			
11	6.7	4.9	5.9	6.2	5.3	5.7	---	---	---			
12	7.0	5.8	6.5	6.1	5.4	5.7	---	---	---			
13	6.6	5.3	6.1	6.7	5.7	6.0	---	---	---			
14	6.2	4.9	5.7	6.7	5.6	6.1	---	---	---			
15	5.8	4.7	5.2	7.1	5.7	6.4	---	---	---			
16	6.1	4.6	5.3	6.9	5.9	6.4	---	---	---			
17	5.9	4.7	5.2	6.7	6.1	6.3	---	---	---			
18	5.8	4.5	5.0	6.9	6.3	6.5	---	---	---			
19	5.5	4.1	4.9	6.6	5.9	6.3	---	---	---			
20	5.9	4.5	5.3	6.0	5.5	5.7	---	---	---			
21	6.2	5.0	5.7	6.0	5.7	5.8	---	---	---			
22	6.3	5.2	5.8	5.9	5.7	5.7	---	---	---			
23	6.3	5.1	5.8	5.8	5.5	5.6	---	---	---			
24	6.3	4.9	5.7	5.7	5.5	5.6	---	---	---			
25	6.2	4.8	5.6	5.9	5.4	5.6	---	---	---			
26	5.9	4.6	5.3	6.2	5.7	6.0	---	---	---			
27	5.6	4.6	5.1	6.3	5.8	6.0	---	---	---			
28	6.3	4.5	5.4	6.3	5.9	6.1	---	---	---			
29	5.9	5.3	5.6	6.5	6.0	6.3	---	---	---			
30	6.2	5.1	5.6	7.2	6.4	6.8	---	---	---			
31	6.1	5.1	5.6	---	---	---	---	---	---			
MONTH	7.0	4.0	5.6	7.2	4.5	5.8	---	---	---			

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1							---	---	---	10.2	9.3	9.8
2							---	---	---	9.8	9.1	9.5
3							---	---	---	10.0	9.5	9.8
4							---	---	---	9.8	8.4	9.2
5							---	---	---	9.0	8.2	8.6
6							---	---	---	8.8	8.2	8.5
7							---	---	---	8.2	8.0	8.1
8							---	---	---	8.5	7.9	8.1
9							---	---	---	8.1	7.7	7.9
10							---	---	---	8.3	7.6	7.9
11							---	---	---	8.3	7.7	8.0
12							---	---	---	8.3	7.9	8.1
13							10.9	10.2	---	8.2	7.7	8.0
14							11.4	10.7	11.0	8.0	7.1	7.5
15							11.6	10.8	11.3	7.2	6.8	7.0
16							11.0	10.5	10.7	7.1	6.5	6.8
17							11.1	10.6	10.8	7.6	6.4	6.9
18							11.0	10.4	10.7	7.3	6.6	6.9
19							10.7	10.4	10.6	7.2	6.4	6.7
20							11.7	10.4	11.2	7.3	7.1	7.2
21							11.7	8.9	10.3	7.2	6.7	7.0
22							9.2	8.4	8.8	7.2	6.7	7.0
23							8.6	8.3	8.4	7.3	6.7	7.0
24							8.8	8.6	8.7	7.2	6.5	6.8
25							9.2	8.7	8.9	7.9	6.6	7.1
26							10.4	8.9	9.6	---	---	---
27							10.4	9.5	9.9	---	---	---
28							10.3	9.7	10.0	---	---	---
29							10.4	9.7	10.0	---	---	---
30							10.2	9.8	10.0	---	---	---
31												
MONTH							11.7	8.3	10.1	10.2	6.4	7.8

01477050 DELAWARE RIVER AT CHESTER, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.3	7.5	---	2.0	1.0	1.5	3.4	2.5	2.8	3.1	2.1	2.5
2	7.9	7.5	7.7	1.8	.2	.9	3.2	2.5	2.7	3.3	1.9	2.5
3	7.8	7.2	7.5	1.9	.5	1.4	2.9	2.4	2.6	3.2	1.9	2.5
4	7.3	6.9	7.1	1.7	.8	1.2	3.5	2.3	2.7	3.0	2.0	2.6
5	7.0	6.3	6.7	2.4	1.1	1.7	4.0	2.5	3.0	3.0	1.7	2.3
6	6.6	6.2	6.4	3.2	1.9	2.6	4.6	2.7	3.5	3.2	1.5	2.5
7	6.2	5.8	6.0	3.6	2.9	3.3	5.4	3.3	4.1	3.2	1.9	2.8
8	6.1	4.4	5.[illegible]	3.8	3.1	3.5	6.1	3.8	4.7	3.6	2.0	3.1
9	5.0	3.9	4.6	4.0	3.2	3.6	5.6	4.2	4.7	3.7	2.4	3.3
10	4.9	4.1	4.4	3.8	3.2	3.6	4.8	3.9	4.3	3.7	2.6	3.2
11	4.6	3.8	4.2	3.6	3.2	3.4	4.9	3.2	3.8	3.6	2.4	3.1
12	4.5	3.6	4.1	3.4	3.2	3.3	4.0	3.1	3.6	3.5	2.1	3.0
13	4.6	3.5	4.1	3.1	2.8	2.9	4.0	2.8	3.5	3.6	2.2	3.0
14	4.4	3.3	3.9	2.8	2.5	2.7	3.6	2.8	3.3	3.8	2.3	3.1
15	4.0	2.8	3.6	2.8	2.4	2.6	3.8	2.9	3.2	3.6	2.2	2.9
16	3.8	.5	2.2	2.8	2.3	2.6	3.7	3.0	3.3	3.9	2.5	3.1
17	4.0	2.8	3.4	3.0	2.3	2.6	3.7	3.2	3.4	4.0	2.8	3.3
18	3.2	2.5	2.9	2.7	2.2	2.5	3.8	3.2	3.5	4.1	2.9	3.5
19	2.7	2.1	2.4	2.8	2.2	2.5	3.8	3.2	3.4	4.2	2.9	3.5
20	2.0	1.4	1.7	2.6	2.1	2.4	3.9	3.2	3.4	4.5	2.7	3.6
21	1.7	1.1	1.3	2.7	2.3	2.5	3.8	3.1	3.5	4.5	2.8	3.5
22	1.8	.7	1.2	2.6	2.1	2.3	4.0	3.0	3.5	4.4	2.4	3.5
23	2.4	.8	1.5	2.5	1.9	2.2	3.6	3.0	3.4	4.5	2.3	3.6
24	3.1	1.0	2.0	3.0	2.0	2.3	3.7	2.3	3.2	4.3	2.2	3.3
25	3.1	1.7	2.5	3.4	2.0	2.5	3.7	2.4	3.3	3.8	1.6	2.8
26	2.9	1.3	2.0	3.7	2.3	2.7	3.8	2.5	3.3	3.5	1.6	2.6
27	3.2	1.0	2.1	3.8	2.7	3.2	3.6	2.3	3.1	4.1	2.2	3.1
28	3.3	1.4	2.4	3.4	2.6	3.0	3.5	2.3	3.0	4.5	2.8	3.7
29	3.1	1.5	2.2	3.5	2.4	2.8	3.5	2.5	3.0	4.8	2.8	4.0
30	2.3	1.3	1.8	3.1	2.4	2.7	3.3	2.2	2.7	5.0	3.3	4.3
31	---	---		3.3	2.2	2.6	3.0	1.9	2.4	---	---	---
MONTH	8.3	.5	3.7	4.0	.2	2.6	6.1	1.9	3.4	5.0	1.5	3.1

01480300 WEST BRANCH BRANDYWINE CREEK NEAR HONEY BROOK, PA

LOCATION.--Lat 40°04'22", long 75°51'40", Chester County, Hydrologic Unit 02040205, at right upstream end of bridge on Legislative Route 15185, at Birdell, 0.4 mi (0.6 km) downstream from Two Log Run, and 3.0 mi (4.8 km) southeast of Honey Brook.

DRAINAGE AREA.--18.7 mi² (48.4 km²).

PERIOD OF RECORD.--June 1960 to current year.

REVISED RECORDS.--WDR PA-73-1: 1972(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 591.20 ft (180.198 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--24 years, 26.5 ft³/s (0.750 m³/s), 19.23 in/yr (488 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,140 ft³/s (231 m³/s) June 22, 1972, July 1, 1984, gage height, 11.41 ft (3.478 m), from rating curve extended above 1,900 ft³/s (53.8 m³/s) on basis of slope-area measurement of peak flow; minimum, 1.7 ft³/s (0.048 m³/s) Aug. 15-19, 1963; minimum gage height, 1.07 ft (0.326 m) Feb. 21, 22, 1977, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14.2 m³/s) and maximum (*):

		DISCHARGE		GAGE HEIGHT				DISCHARGE		GAGE HEIGHT	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Nov. 25	1145	540	15.3	6.02	1.835	Apr. 5	0615	510	14.4	5.90	1.798
Dec. 12	1930	2560	72.5	8.97	2.734	May 29	1715	821	23.3	6.83	2.082
Dec. 13	1530	532	15.1	5.99	1.826	July 1	1115	*8140	231	11.40	3.475
Dec. 22	1100	663	18.8	6.42	1.957	July 7	0400	4500	127	10.14	3.091
Dec. 28	1745	603	17.1	6.23	1.898	July 11	0515	821	23.3	6.83	2.082

Minimum daily discharge, 6.0 ft³/s (0.17 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	9.6	25	19	19	28	47	28	34	1220	22	13
2	6.7	9.5	22	20	17	26	38	26	28	53	21	13
3	7.7	9.6	25	21	30	25	35	28	29	31	21	14
4	7.1	9.9	156	22	220	24	58	215	28	26	21	19
5	6.7	9.6	44	23	60	44	252	46	26	27	21	17
6	6.7	9.2	44	23	25	62	108	35	26	54	18	14
7	6.6	8.8	50	22	19	35	46	34	25	889	17	13
8	6.6	8.7	26	20	17	28	38	84	25	44	17	12
9	6.3	8.7	24	20	20	29	36	96	24	32	16	12
10	6.3	9.1	24	35	25	33	34	37	23	31	15	12
11	6.3	16	20	25	58	28	32	32	22	282	24	13
12	8.0	19	606	22	45	28	32	34	21	43	23	12
13	16	16	490	19	33	31	34	30	21	32	22	12
14	19	14	159	18	170	58	36	29	30	27	20	12
15	18	76	49	17	470	73	44	27	24	25	18	14
16	13	163	37	16	160	98	65	26	22	26	16	14
17	8.8	26	30	16	64	71	44	26	21	29	15	12
18	7.5	19	28	16	54	46	54	26	87	38	15	12
19	9.4	16	28	16	43	41	42	26	59	27	17	12
20	12	15	24	16	34	34	35	25	26	25	19	11
21	11	150	22	16	29	115	31	25	25	31	16	11
22	10	26	240	17	25	54	29	25	23	29	16	11
23	15	19	42	17	30	36	46	40	22	26	16	11
24	112	21	28	19	230	30	44	33	57	25	16	11
25	32	260	23	30	50	32	36	26	55	24	16	11
26	21	45	21	52	38	33	30	26	26	21	16	11
27	16	29	20	64	32	28	28	28	24	78	15	11
28	14	62	191	46	52	116	26	26	23	28	14	12
29	12	113	60	21	39	121	34	245	22	24	14	16
30	10	31	28	20	---	137	30	195	30	23	14	11
31	9.9	---	26	21	---	73	---	48	---	23	13	---
TOTAL	447.6	1228.7	2612	729	2108	1617	1444	1627	908	3293	544	379
MEAN	14.4	41.0	84.3	23.5	72.7	52.2	48.1	52.5	30.3	106	17.5	12.6
MAX	112	260	606	64	470	137	252	245	87	1220	24	19
MIN	6.0	8.7	20	16	17	24	26	25	21	21	13	11
CFSM	.77	2.19	4.51	1.26	3.89	2.79	2.57	2.81	1.62	5.67	.94	.67
IN.	.89	2.44	5.20	1.45	4.19	3.22	2.87	3.24	1.81	6.55	1.08	.75

CAL YR 1983 TOTAL 13260.0 MEAN 36.3 MAX 606 MIN 4.9 CFSM 1.94 IN. 26.38
WTR YR 1984 TOTAL 16937.3 MEAN 46.3 MAX 1220 MIN 6.0 CFSM 2.48 IN. 33.69

01480500 WEST BRANCH BRANDYWINE CREEK AT COATESVILLE, PA

LOCATION.--Lat 39°59'08", long 75°49'40", Chester County, Hydrologic Unit 02040205, on right bank at city limits of Coatesville, 1,200 ft (366 m) upstream from bridge on old Lincoln Highway, and 0.6 mi (1.0 km) downstream from Rock Run.

DRAINAGE AREA.--45.8 mi² (118.6 km²).

PERIOD OF RECORD.--October 1943 to December 1951, January 1970 to current year.

GAGE.--Water-stage recorder and V-notch sharp crested weir. Altitude of gage is 305 ft (93.0 m), from topographic map. Sept. 10, 1943, to Dec. 31, 1951, nonrecording gage at site 1,100 ft (335 m) downstream at different datum.

REMARKS.--Records fair. Diversion above station from Rock Run Reservoir, capacity, 320 mil gal (1.211 hm³) 2.6 mi (4.2 km) upstream for municipal supply of City of Coatesville. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years (water years 1943-51, 1970-84), 72.8 ft³/s (2.062 m³/s), 21.59 in/yr (548 mm/yr), adjusted for storage and diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,100 ft³/s (229 m³/s) June 29, 1973, gage height, 10.08 ft (3.072 m), from rating curve extended above 2,200 ft³/s (62.3 m³/s) on basis of slope-area measurement at gage height 9.92 ft (3.024 m); minimum observed, 4.6 ft³/s (0.13 m³/s) Sept. 10, 1944, gage height, 0.70 ft (0.213 m), site and datum then in use; minimum daily, 7.7 ft³/s (0.22 m³/s) Sept. 14, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 9, 1942 reached a stage of 12.3 ft (3.75 m), site and datum then in use, discharge, 8,600 ft³/s (244 m³/s), by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximum (*):

		DISCHARGE		GAGE HEIGHT				DISCHARGE		GAGE HEIGHT	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
Dec. 13	0200	2100	59.5	6.92	2.109	May 29	1530	984	27.9	5.89	1.795
Feb. 15	0400	1060	30.0	5.98	1.823	July 1	1530	3910	111	8.10	2.469
Feb. 16	0130	902	25.5	5.79	1.765	July 7	0330	*4250	120	*8.30	2.530
Apr. 5	0400	781	22.1	5.63	1.716	July 11	0245	886	25.1	5.77	1.759

Minimum daily discharge, 8.0 ft³/s (0.23 m³/s) Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	17	53	50	49	80	126	71	88	1230	52	31
2	13	17	47	50	40	64	98	64	73	166	51	29
3	14	17	49	50	66	59	90	80	73	77	52	33
4	11	18	221	53	336	54	131	420	68	63	51	48
5	11	16	145	55	130	100	524	120	61	64	52	36
6	11	15	88	52	69	150	255	94	59	138	48	32
7	11	15	108	50	48	64	132	90	57	1430	46	30
8	8.9	16	57	47	42	71	108	154	54	128	44	29
9	8.8	15	55	54	51	71	96	216	52	85	42	28
10	8.0	24	49	57	59	67	92	95	50	76	42	30
11	9.2	63	44	74	110	66	88	84	46	457	60	33
12	24	49	378	48	122	61	82	89	41	120	55	30
13	35	33	1030	50	81	92	85	80	37	79	57	28
14	36	26	423	47	169	195	92	73	66	69	45	28
15	18	116	151	43	783	171	107	69	55	64	42	35
16	12	277	113	38	450	168	157	67	47	65	[illegible]	34
17	11	65	96	53	162	152	124	66	53	69	39	28
18	12	56	74	56	147	101	115	65	183	81	38	27
19	35	36	66	44	105	88	101	64	150	69	47	26
20	25	34	60	39	85	78	85	62	60	59	44	25
21	15	215	49	40	74	187	77	59	51	81	38	23
22	13	69	356	41	65	157	73	57	48	78	37	23
23	42	42	174	43	74	92	109	70	47	66	41	22
24	213	44	87	46	415	80	106	86	90	58	42	21
25	58	358	50	90	128	87	90	58	140	54	36	23
26	40	127	49	132	100	84	75	56	55	52	35	21
27	29	57	47	161	76	74	71	62	50	221	34	19
28	22	90	166	129	130	197	67	63	47	78	34	36
29	19	236	272	54	100	312	96	391	45	61	33	37
30	16	83	87	48	---	236	77	453	48	57	33	29
31	16	---	70	52	---	202	---	139	---	54	33	---
TOTAL	807.9	2246	4714	1846	4267	3680	3529	3617	1994	5449	1343	874
MEAN	26.1	74.9	152	59.5	147	119	118	117	66.5	176	43.3	29.1
MAX	213	358	1030	161	783	312	524	453	183	1430	60	48
MIN	8.0	15	44	38	40	54	67	56	37	52	33	19
†	4.7	4.5	4.9	3.8	4.3	3.9	4.0	4.0	4.1	4.2	4.1	4.2
MEAN‡	30.8	79.4	157	63.3	151	123	122	121	70.6	180	47.4	33.3
CFSM‡	.67	1.73	3.43	1.38	3.30	2.68	2.66	2.64	1.54	3.93	1.03	.73
IN‡	.76	1.96	3.88	1.56	3.74	3.04	3.01	2.99	1.74	4.45	1.17	.82

CAL YR 1983 TOTAL 27213.3 MEAN 74.6 MAX 1030 MIN 8.0 MEAN‡ 78.8 CFSM‡ 1.72 IN‡ 23.37
WTR YR 1984 TOTAL 34366.9 MEAN 93.9 MAX 1430 MIN 8.0 MEAN‡ 98.2 CFSM‡ 2.14 IN‡ 29.13

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA

LOCATION.--Lat 39°57'42", long 75°48'06", Chester County, Hydrologic Unit 02040205, on left bank at bridge on Legislative Route 15068 at Modena and 300 ft (91 m) upstream from Dennis Run.

DRAINAGE AREA.--55.0 mi^2 (142.4 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1970 to current year.

REVISED RECORDS.--WDR PA-74-1: 1971-72(P), 1973. WDR PA-75-1: 1974(m).

GAGE.--Water-stage recorder. Altitude of gage is 265 ft (80.8 m), from topographic map.

REMARKS.--Records good. Flow regulated by Rock Run Reservoir, capacity, 320 mil gal (1.211 hm^3) 5.6 mi (9.0 km) upstream and by Lukens Steel Company.

AVERAGE DISCHARGE.--14 years, 97.3 ft^3/s (2.756 m^3/s), 24.03 in/yr (610 mm/yr), adjusted for storage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,600 ft^3/s (272 m^3/s) June 29, 1973, gage height, 12.47 ft (3.081 m), from rating curve extended above 920 ft^3/s (26.1 m^3/s) on basis of slope-area measurement at gage height 11.48 ft (3.499 m); minimum, 1.8 ft^3/s (0.051 m^3/s) Aug. 29, 1974; minimum gage height, 2.27 ft (0.692 m) Oct. 14, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) revised and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 13	0215	2770	78.4	7.15	2.179	July 1	1645	*4830	137	*9.11	2.777
Feb. 15	0415	1390	39.4	5.67	1.728	July 7	0930	3980	113	8.36	2.548
May 29	1600	1270	36.0	5.52	1.682						

Minimum daily discharge, 15 ft^3/s (0.42 m^3/s) Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	41	95	75	73	95	94	104	129	1730	70	42
2	29	39	87	75	59	92	114	94	112	225	69	40
3	24	42	90	75	87	87	486	108	110	109	72	48
4	20	44	288	77	368	90	182	490	104	90	69	68
5	20	41	208	82	162	146	132	187	93	96	68	48
6	28	37	142	75	98	180	127	132	90	173	65	43
7	27	38	166	75	72	114	195	127	87	1920	62	40
8	26	41	102	70	63	98	261	186	83	182	60	39
9	16	39	97	74	70	96	141	269	80	118	58	39
10	15	62	87	80	85	91	133	137	77	104	57	42
11	19	104	81	105	131	93	128	122	72	499	76	43
12	61	86	520	70	151	88	120	128	65	156	81	40
13	61	59	1310	70	109	129	122	118	62	94	80	38
14	59	50	507	70	202	236	130	110	95	87	61	37
15	40	174	202	64	924	199	142	103	81	82	57	49
16	21	356	159	55	528	195	190	101	67	96	54	44
17	27	107	136	73	202	186	163	96	85	101	51	38
18	29	94	112	82	184	134	149	95	241	107	51	36
19	67	64	99	66	145	119	140	99	222	93	72	36
20	47	61	90	57	121	111	120	94	92	80	61	34
21	35	269	75	58	109	223	110	90	79	120	52	33
22	31	112	419	55	99	196	104	87	74	105	50	32
23	93	75	225	59	113	126	145	105	71	89	54	31
24	286	79	127	68	465	110	141	121	130	80	57	32
25	98	435	88	113	174	117	125	88	174	71	49	33
26	68	193	78	158	131	115	109	85	84	69	45	32
27	52	102	80	178	109	100	100	92	74	296	45	30
28	45	138	212	160	155	99	99	98	71	104	45	53
29	44	303	298	78	133	135	135	479	69	82	44	49
30	39	138	121	70	---	111	111	542	75	77	45	38
31	41	---	103	74	---	104	---	185	---	72	45	---
TOTAL	1496	3423	6404	2541	5322	4015	4448	4872	2948	7307	1825	1207
MEAN	48.3	114	207	82.0	184	130	148	157	98.3	236	58.9	40.2
MAX	286	435	1310	178	924	236	486	542	241	1920	81	68
MIN	15	37	75	55	59	87	94	85	62	69	44	30
†	0	0	0	0	0	0	0	0	0	0	0	0
MEAN‡	48.3	114	207	82.0	184	130	148	151	98.3	236	58.9	40.2
CFSM‡	.88	2.07	3.76	1.49	3.35	2.36	2.69	2.85	1.79	4.29	1.07	.73
IN‡	.99	2.35	4.26	1.69	3.79	2.67	3.05	3.23	2.02	4.86	1.21	.83

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CAL YR 1983  TOTAL   37505 MEAN   103 MAX   1310 MIN   15   MEAN‡  102   CFSM‡  1.86   IN‡  25.30
WTR YR 1984  TOTAL   45808 MEAN   125 MAX   1920 MIN   15   MEAN‡  125   CFSM‡  2.27   IN‡  30.86
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01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1969 to October 1978, August 1981 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1971 to October 1978, August 1981 to current year.
pH: May 1971 to October 1978, August 1981 to current year.
WATER TEMPERATURES: May 1971 to October 1978, August 1981 to current year.
DISSOLVED OXYGEN: May 1971 to October 1978, August 1981 to current year.

INSTRUMENTATION.--Water-quality monitor May 1971 to October 1978, August 1981 to current year.

REMARKS.--Not operated Dec. 1 to Mar. 7. Other interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 858 micromhos Jan. 10, 1977; minimum, 88 micromhos Nov. 30, 1976.
pH: Maximum, 10.0 Dec. 21, 1971, minimum, 6.3 April 3, 1975.
WATER TEMPERATURES: Maximum, 33.5°c July 19, 1977; minimum, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 16.3 mg/L Dec. 30, 1973; minimum. 0.6 mg/L Nov. 1, 3, 1974.

WATER QUALITY DATA, WATER OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)
OCT							
04...	1130	13	328	7.7	19.5	9.5	280
11...	1130	36	350	7.6	16.5	8.8	140
18...	1130	12	337	7.6	16.5	9.8	520
25...	1130	102	265	7.3	13.5	9.8	7000
NOV							
01...	1100	20	335	7.2	10.5	12.1	330
08...	1200	19	331	7.2	13.0	11.2	1600
15...	1400	97	275	7.1	10.0	10.0	6900
22...	1130	112	217	7.3	9.5	10.7	18000
DEC							
01...	1100	86	251	7.5	6.5	11.5	--
MAR							
07...	1300	112	244	7.5	4.0	12.6	--
14...	1430	245	236	7.2	4.0	13.1	--
19...	1400	120	240	7.8	7.0	12.7	9600
26...	1100	102	235	6.7	7.0	12.4	760
APR							
02...	1030	130	215	6.6	9.0	13.1	1800
09...	1100	144	225	6.7	11.0	11.6	350
16...	1130	198	197	7.1	10.0	11.0	8800
23...	1100	147	213	7.2	8.5	11.9	4000
MAY							
03...	1130	84	242	7.4	12.5	10.8	710
07...	1030	115	173	7.3	12.0	10.3	5000
14...	1130	97	226	7.8	14.5	10.3	5200
24...	1200	110	228	7.8	18.0	9.6	3400
29...	1130	139	199	6.8	18.0	8.0	22000
JUN							
04...	1130	90	241	7.5	17.0	10.4	11000
11...	1130	67	256	8.0	23.5	9.0	1400
18...	1130	282	172	7.2	18.0	8.6	42000
26...	1100	71	242	7.0	20.0	9.7	10000
JUL							
02...	1230	173	188	7.4	21.0	9.4	57000
09...	1200	121	237	7.0	18.0	8.6	13000
31...	1130	61	263	7.9	20.5	9.3	1100
AUG							
06...	1130	54	267	8.0	23.0	9.1	550
13...	1130	66	241	7.7	23.0	8.5	9000
20...	1430	66	266	7.8	23.5	9.4	--
AUG							
27...	1430	52	291	8.3	22.5	8.8	350
SEP							
04...	1430	70	238	7.6	20.5	8.3	24000
10...	1000	23	292	7.6	18.5	9.4	19000
17...	1430	44	309	8.2	19.0	10.3	1700
24...	1430	38	308	8.4	23.0	10.2	4300

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	447	326	361	---	---	---						
2	436	337	376	---	---	---						
3	381	296	322	306	293	---						
4	368	315	348	306	280	291						
5	410	347	374	---	---	---						
6	379	328	353	---	---	---						
7	382	326	353	---	---	---						
8	4[illegible]	327	380	---	---	---						
9	---	---	---	---	---	---						
10	---	---	---	---	---	---						
11	---	---	---	---	---	---						
12	363	184	300	---	---	---						
13	326	209	279	---	---	---						
14	359	252	298	---	---	---						
15	346	287	310	---	---	---						
16	344	311	328	---	---	---						
17	357	319	336	---	---	---						
18	363	324	343	---	---	---						
19	362	217	278	---	---	---						
20	330	274	298	---	---	---						
21	361	309	327	---	---	---						
22	348	310	328	---	---	---						
23	352	195	272	268	239	254						
24	247	187	221	266	238	257						
25	275	262	270	235	144	170						
26	336	274	306	211	144	184						
27	335	302	318	236	202	218						
28	356	321	339	264	165	219						
29	361	332	347	186	153	174						
30	362	327	342	224	181	201						
31	341	329	---	---	---	---						
MONTH	451	184	322	306	144	219						

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	---	---	---	269	227	237
2				---	---	---	---	---	---	261	233	243
3				---	---	---	---	---	---	248	223	239
4				---	---	---	---	---	---	---	---	---
5				---	---	---	---	---	---	---	---	---
6				---	---	---	---	---	---	---	---	---
7				---	---	---	---	---	---	---	---	---
8				257	225	238	---	---	---	---	---	---
9				---	---	---	---	---	---	---	---	---
10				---	---	---	264	223	235	---	---	---
11				---	---	---	249	226	238	254	235	247
12				---	---	---	251	233	242	257	229	244
13				---	---	---	247	232	241	255	235	244
14				---	---	---	236	222	228	256	226	241
15				236	199	214	268	204	214	241	217	231
16				234	205	223	225	190	204	249	227	241
17				258	219	236	232	207	219	252	232	242
18				---	---	---	233	215	222	251	238	245
19				---	---	---	283	218	231	256	237	243
20				---	---	---	244	226	235	255	238	246
21				---	---	---	274	235	250	260	244	253
22				---	---	---	249	227	242	317	247	259
23				---	---	---	239	208	215	264	199	250
24				---	---	---	226	212	219	249	198	228
25				---	---	---	250	218	231	257	238	247
26				---	---	---	260	236	246	257	244	252
27				---	---	---	250	237	245	254	231	243
28				---	---	---	270	239	247	286	162	242
29				---	---	---	244	206	223	245	123	175
30				---	---	---	299	232	238	207	134	160
31				---	---	---	---	---	---	229	207	217
MONTH				258	199	228	299	190	232	317	123	236

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	241	217	228	---	---	---	284	268	274	305	270	292
2	250	232	241	---	---	---	280	270	275	304	260	292
3	248	220	237	329	214	236	277	257	272	309	218	286
4	257	232	244	260	240	252	285	259	271	261	236	245
5	265	249	256	268	175	256	277	258	269	293	252	267
6	268	250	260	245	201	221	284	267	272	300	265	282
7	295	258	264	---	---	---	285	264	274	308	273	291
8	347	261	271	---	---	---	286	267	276	308	277	291
9	278	266	272	---	---	---	266	270	279	301	282	293
10	310	265	272	263	243	251	290	270	277	302	247	291
11	302	256	271	246	110	159	278	230	254	321	281	299
12	282	257	269	241	195	216	316	176	244	319	291	305
13	294	251	278	262	238	248	267	172	242	318	296	307
14	279	217	245	272	250	260	278	258	266	327	300	314
15	328	240	257	275	253	262	283	264	275	328	271	301
16	290	216	266	267	145	255	293	266	278	303	266	283
17	258	200	240	273	227	251	354	271	284	317	280	298
18	252	146	192	272	230	252	305	268	282	327	286	303
19	261	163	218	273	233	256	291	177	253	330	299	315
20	285	257	268	269	254	263	288	237	260	331	301	316
21	289	266	278	270	145	237	292	270	281	336	305	321
22	301	274	286	247	236	243	332	276	297	371	301	322
23	292	275	285	274	247	259	331	279	299	332	303	318
24	324	167	245	324	262	271	292	256	273	325	301	31[illegible]
25	---	---	---	286	270	279	307	274	289	324	292	308
26	---	---	---	287	269	277	342	278	297	315	295	304
27	---	---	---	278	149	200	317	284	298	317	293	306
28	---	---	---	266	223	243	304	283	293	309	235	264
29	---	---	---	355	249	261	305	282	293	297	240	263
30	---	---	---	283	261	269	307	286	295	289	265	276
31	---	---	---	275	263	267	316	281	297	---	---	---
MONTH	347	146	256	355	110	248	354	172	277	371	218	296

PH (UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	8.1	7.3	7.5	---	---	---						
2	8.2	7.3	7.7	---	---	---						
3	8.5	7.4	7.7	7.8	7.6	---						
4	8.6	7.4	7.8	7.9	7.5	7.7						
5	8.7	7.4	7.8	---	---	---						
6	8.4	7.4	7.7	---	---	---						
7	8.6	7.4	7.8	---	---	---						
8	8.7	7.5	7.8	---	---	---						
9	---	---	---	8.2	7.5	7.7						
10	---	---	---	7.7	7.5	7.6						
11	8.3	7.5	7.8	7.6	7.5	7.5						
12	7.6	7.4	7.5	7.8	7.5	7.6						
13	7.8	7.4	7.6	7.9	7.6	7.7						
14	8.0	7.5	7.7	7.9	7.5	7.0						
15	8.1	7.5	7.7	---	---	---						
16	8.7	7.5	7.8	---	---	---						
17	8.6	7.5	7.8	---	---	---						
18	8.4	7.4	7.7	---	---	---						
19	7.9	7.4	7.6	---	---	---						
20	8.0	7.5	7.7	---	---	---						
21	8.4	7.5	7.8	---	---	---						
22	8.2	7.5	7.8	---	---	---						
23	7.9	7.4	7.6	7.7	7.5	7.6						
24	7.4	7.3	7.4	7.6	7.4	7.5						
25	7.7	7.2	7.5	7.5	7.4	7.4						
26	7.9	7.5	7.7	7.5	7.4	7.5						
27	8.2	7.6	7.8	7.6	7.5	7.5						
28	8.0	7.6	7.7	7.6	7.4	7.5						
29	8.0	7.6	7.8	7.5	7.3	7.4						
30	8.1	---	---	7.6	7.5	7.5						
31	7.7	7.6	---	---	---	---						
MONTH	8.7	7.2	7.6	8.2	7.3	7.5						

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1				---	---	---	---	---	---	8.3	7.3	7.7
2				---	---	---	---	---	---	8.4	7.3	7.7
3				---	---	---	---	---	---	8.2	7.3	7.6
4				---	---	---	---	---	---	---	---	---
5				---	---	---	---	---	---	---	---	---
6				---	---	---	---	---	---	---	---	---
7				---	---	---	---	---	---	---	---	---
8				7.8	7.5	7.6	---	---	---	---	---	---
9				---	---	---	---	---	---	---	---	---
10				---	---	---	8.2	7.5	7.7	---	---	---
11				---	---	---	8.2	7.5	7.8	8.2	7.5	7.8
12				---	---	---	8.3	7.5	7.8	8.1	7.5	7.7
13				---	---	---	8.4	7.5	7.8	8.3	7.5	7.8
14				---	---	---	8.6	7.5	8.0	8.4	7.5	7.9
15				7.6	7.4	7.5	8.6	7.6	7.9	8.2	7.5	7.8
16				7.7	7.4	7.5	7.8	7.1	7.6	8.3	7.6	7.9
17				7.9	7.4	7.6	8.2	7.5	7.7	8.4	7.6	7.9
18				---	---	---	8.2	7.5	7.8	8.1	7.5	7.7
19				---	---	---	8.3	7.5	7.8	8.4	7.5	7.8
20				---	---	---	8.4	7.5	7.8	8.6	7.5	7.9
21				---	---	---	8.6	7.5	8.0	8.5	7.4	7.8
22				---	---	---	8.6	7.5	7.9	8.5	7.4	7.8
23				---	---	---	7.9	7.3	7.6	7.9	7.3	7.5
24				---	---	---	8.1	7.5	7.7	8.3	7.3	7.7
25				---	---	---	8.4	7.5	7.9	8.4	7.5	7.8
26				---	---	---	8.6	7.5	7.9	8.4	7.4	7.8
27				---	---	---	8.7	7.4	8.0	8.4	7.4	7.8
28				---	---	---	8.6	7.4	7.9	7.7	7.4	7.5
29				---	---	---	8.5	7.4	7.8	7.9	7.2	7.4
30				---	---	---	7.8	7.3	7.5	7.5	7.3	7.4
31				---	---	---	---	---	---	7.7	7.5	7.6
MONTH				7.9	7.4	7.6	8.7	7.1	7.7	8.6	7.2	7.8

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	7.8	7.6	7.7	---	---	---	8.4	7.6	7.9	8.6	7.6	8.0
2	7.9	7.6	7.7	---	---	---	8.4	7.5	7.8	8.5	7.6	8.0
3	7.7	7.5	7.6	7.8	7.6	7.7	8.2	7.5	7.7	8.5	7.4	7.9
4	7.6	7.5	7.7	7.9	7.6	7.7	8.2	7.5	7.8	7.9	7.4	7.6
5	8.3	7.5	7.8	7.9	7.6	7.8	8.3	7.5	7.8	8.3	7.6	7.9
6	8.4	7.5	7.8	7.8	7.5	7.7	8.3	7.5	7.9	8.4	7.5	7.9
7	8.4	7.5	7.9	---	---	---	8.5	7.5	7.9	8.4	7.6	7.9
8	8.4	7.4	7.8	---	---	---	8.4	7.5	7.9	8.6	7.5	7.9
9	8.4	7.4	7.8	---	---	---	8.5	7.5	7.9	8.5	7.5	8.0
10	8.4	7.4	7.8	7.8	7.6	7.7	8.2	7.5	7.7	8.2	7.5	7.7
11	8.5	7.3	7.8	7.6	7.2	7.4	8.1	7.5	7.8	8.4	7.5	7.8
12	8.5	7.5	7.9	7.7	7.5	7.6	8.1	7.4	7.7	8.4	7.5	7.8
13	8.3	7.5	7.8	7.8	7.6	7.7	8.3	7.4	7.8	8.4	7.5	7.9
14	8.0	7.4	7.7	7.9	7.6	7.7	8.4	7.5	7.9	8.3	7.4	7.7
15	8.0	7.4	7.7	8.0	7.6	7.8	8.4	7.5	7.9	8.1	7.4	7.7
16	8.0	7.4	7.6	8.1	7.6	7.8	8.4	7.5	7.9	8.4	7.5	7.9
17	7.6	7.3	7.5	7.9	7.5	7.7	8.4	7.5	7.9	8.3	7.5	7.8
18	7.6	7.2	7.4	7.8	7.5	7.6	8.5	7.5	7.9	8.4	7.5	7.8
19	8.0	7.4	7.5	8.1	7.6	7.8	7.9	7.4	7.6	8.2	7.4	7.7
20	8.0	7.5	7.7	8.1	7.5	7.8	8.1	7.5	7.8	8.3	7.3	7.7
21	8.0	7.5	7.8	7.7	7.5	7.5	8.4	7.6	7.9	8.2	7.3	7.7
22	8.0	7.5	7.7	7.9	7.4	7.6	8.4	7.6	7.9	8.2	7.3	7.7
23	8.1	7.5	7.7	8.0	7.4	7.7	8.2	7.5	7.8	8.4	7.3	7.7
24	7.9	7.4	7.6	8.1	7.5	7.8	8.3	7.5	7.9	8.6	7.3	7.8
25	---	---	---	8.1	7.5	7.8	8.3	7.5	7.9	8.5	7.4	7.9
26	---	---	---	8.3	7.4	7.8	8.4	7.5	7.9	8.3	7.4	7.8
27	---	---	---	7.5	7.3	7.4	8.4	7.5	7.9	8.5	7.5	7.9
28	---	---	---	7.7	7.3	7.5	8.6	7.6	8.0	7.9	7.6	7.7
29	---	---	---	8.0	7.5	7.7	8.5	7.5	7.9	8.4	7.5	7.8
30	---	---	---	8.0	7.5	7.7	8.6	7.6	8.0	8.4	7.6	7.9
31	---	---	---	8.3	7.5	7.8	8.6	7.5	8.0	---	---	---
MONTH	8.5	7.2	7.7	8.3	7.2	7.5	8.6	7.4	7.9	8.6	7.3	7.8

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	19.5	17.5	18.5	12.5	9.0	10.5						
2	21.0	19.0	20.0	13.5	9.5	11.5						
3	22.5	17.5	19.5	15.5	14.5	---						
4	22.5	18.0	20.0	---	---	---						
5	23.0	19.0	21.0	---	---	---						
6	22.0	18.5	20.5	---	---	---						
7	21.0	17.0	19.0	---	---	---						
8	20.5	15.5	18.0	---	---	---						
9	---	---	---	13.0	10.5	11.5						
10	---	---	---	12.0	10.5	11.5						
11	17.5	17.0	17.0	12.0	10.5	11.5						
12	19.0	17.5	18.5	10.5	8.5	9.5						
13	20.0	18.5	19.5	9.5	7.5	8.5						
14	20.0	16.5	18.5	9.0	8.0	8.5						
15	18.5	15.0	16.5	---	---	---						
16	19.0	14.5	16.0	---	---	---						
17	17.5	14.0	16.0	---	---	---						
18	18.0	15.5	17.0	---	---	---						
19	17.5	15.0	16.0	---	---	---						
20	15.5	14.0	14.5	---	---	---						
21	15.0	13.0	14.0	---	---	---						
22	14.5	11.0	13.0	---	---	---						
23	14.0	13.0	13.5	11.0	9.5	10.5						
24	14.5	13.5	14.0	12.0	11.0	11.5						
25	14.0	13.5	13.5	11.5	6.5	8.5						
26	15.0	13.0	13.5	8.0	6.0	7.0						
27	14.0	11.5	12.5	9.0	7.0	8.0						
28	15.0	11.5	13.0	9.0	8.5	9.0						
29	15.5	12.5	14.0	9.5	8.0	9.0						
30	13.5	11.0	12.5	8.5	7.0	7.5						
31	12.0	10.0	---	---	---	---						
MONTH	23.0	10.0	16.5	15.5	6.0	9.5						

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1				---	---	---	---	---	---	15.5	12.5	14.0
2				---	---	---	---	---	---	15.0	11.5	13.5
3				---	---	---	---	---	---	13.5	12.0	12.5
4				---	---	---	---	---	---	---	---	---
5				---	---	---	---	---	---	---	---	---
6				---	---	---	---	---	---	---	---	---
7				---	---	---	---	---	---	---	---	---
8				3.5	1.0	2.5	---	---	---	---	---	---
9				---	---	---	10.0	8.0	7.5	---	---	---
10				---	---	---	10.5	7.0	8.5	---	---	---
11				---	---	---	11.0	7.0	9.0	17.0	12.0	14.5
12				---	---	---	13.0	8.5	10.5	16.5	14.5	15.5
13				---	---	---	12.0	10.0	11.0	18.0	13.5	15.5
14				---	---	---	11.0	10.0	10.5	16.5	14.5	15.5
15				5.5	1.5	3.0	10.5	9.5	10.0	14.5	12.5	13.5
16				4.5	3.0	4.0	11.0	10.0	10.5	14.5	11.5	13.0
17				5.5	3.5	4.5	13.5	9.5	11.5	16.0	11.0	13.5
18				---	---	---	13.0	10.0	11.5	14.0	12.0	12.5
19				---	---	---	12.5	10.5	11.5	16.0	12.5	14.0
20				---	---	---	14.0	10.0	12.0	19.0	15.0	17.0
21				---	---	---	14.0	10.5	12.0	19.5	16.5	18.0
22				---	---	---	11.5	9.5	10.5	22.0	16.5	19.0
23				---	---	---	10.0	8.5	9.0	20.5	17.5	19.0
24				---	---	---	10.0	9.0	9.5	20.5	16.5	18.0
25				---	---	---	11.0	9.0	10.0	21.0	16.0	18.5
26				---	---	---	15.5	9.5	12.5	22.0	18.0	20.0
27				---	---	---	16.5	11.5	14.0	21.0	18.0	19.5
28				---	---	---	14.0	12.5	13.5	19.0	17.0	17.5
29				---	---	---	17.0	11.5	14.5	19.0	17.5	18.0
30				---	---	---	15.0	13.5	14.0	17.5	15.0	16.0
31				---	---	---	---	---	---	16.5	14.0	15.0
MONTH				5.5	1.0	3.5	17.0	7.0	11.0	22.0	11.0	16.0

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	17.5	13.5	15.5	---	---	---	24.5	20.5	22.5	23.5	20.5	22.0
2	18.0	14.5	16.0	---	---	---	24.5	21.5	23.0	22.5	19.5	21.0
3	18.0	14.5	16.0	24.0	20.5	22.0	24.0	22.0	23.0	24.0	20.0	21.5
4	20.5	15.0	17.5	24.0	20.5	22.0	25.5	21.5	23.5	21.5	19.5	20.5
5	21.0	16.5	18.5	25.0	22.0	23.0	25.0	22.5	23.5	21.0	17.5	19.0
6	22.0	18.0	20.0	23.0	21.5	22.5	25.0	21.5	23.5	20.0	16.5	18.0
7	23.5	19.5	21.5	---	---	---	26.0	22.5	24.0	20.0	15.5	17.5
8	24.0	20.0	22.0	---	---	---	26.5	22.5	24.5	20.5	16.0	18.0
9	25.0	20.5	23.0	---	---	---	26.5	23.0	24.5	21.0	16.5	18.5
10	25.0	21.0	23.0	19.5	18.0	18.5	24.0	23.0	23.5	21.0	18.0	19.0
11	26.0	21.5	23.5	22.0	18.5	20.5	25.0	22.5	23.5	21.5	18.5	20.0
12	25.5	21.5	23.5	24.0	20.5	22.0	25.5	22.5	23.5	22.5	19.5	20.5
13	26.0	21.5	23.5	24.0	20.0	22.0	26.0	22.5	24.0	23.0	18.5	20.5
14	24.5	21.5	23.0	24.5	20.5	22.5	26.0	22.5	24.5	23.0	20.5	21.5
15	23.5	20.5	22.0	25.0	21.0	23.0	27.0	23.0	25.0	21.5	18.0	20.0
16	22.0	18.0	20.0	25.5	22.0	23.5	26.5	22.5	24.5	19.5	16.0	17.5
17	19.5	18.5	19.0	24.5	20.5	22.5	25.5	22.5	24.0	19.5	15.5	17.0
18	19.0	18.0	18.5	22.5	21.0	22.0	25.5	22.0	23.5	19.0	15.0	17.0
19	23.0	19.0	20.5	23.5	19.5	21.0	22.5	20.5	21.5	20.0	15.0	17.5
20	22.0	19.0	20.5	23.0	19.0	21.0	22.5	20.0	20.5	21.5	16.5	18.5
21	23.0	18.5	21.0	21.5	20.0	20.5	23.0	18.5	21.0	22.0	18.0	19.5
22	23.0	18.5	21.0	22.5	19.5	21.0	23.5	19.0	21.0	21.5	17.5	19.0
23	21.0	19.5	20.0	24.0	20.0	22.0	23.0	20.5	21.5	22.5	18.0	20.0
24	20.0	19.0	19.5	24.0	20.5	22.0	23.0	19.5	21.5	23.5	20.0	21.5
25	---	---	---	24.0	20.5	22.0	24.0	19.5	21.5	23.5	21.0	22.0
26	---	---	---	23.0	19.5	21.5	24.0	20.0	21.5	22.0	18.0	20.5
27	---	---	---	21.5	19.5	20.5	23.5	19.5	21.5	18.0	16.0	17.0
28	---	---	---	20.5	19.0	20.0	24.0	20.0	22.0	16.0	14.0	14.5
29	---	---	---	21.0	18.0	19.5	23.5	21.5	22.0	17.0	14.0	15.5
30	---	---	---	21.5	19.0	20.0	25.0	21.5	23.0	17.5	14.5	16.0
31	---	---	---	23.5	18.5	21.0	25.0	22.0	23.5	---	---	---

5 20.5 25.5 18.0 21.5 27.0 18.5 23.0 24.0 14.0 19.0

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.3	6.2	7.5	12.1	11.2	11.3						
2	10.9	5.8	7.8	12.0	10.6	11.5						
3	10.7	5.9	8.2	9.9	7.7	---						
4	11.0	5.3	7.9	---	---	---						
5	11.2	4.9	7.5	---	---	---						
6	10.2	5.0	7.0	---	---	---						
7	10.6	4.8	7.5	---	---	---						
8	10.9	5.2	7.7	---	---	---						
9	---	---	---	11.6	7.9	9.5						
10	---	---	---	9.8	8.0	9.0						
11	---	---	---	9.6	9.0	9.3						
12	7.9	6.4	7.2	10.9	9.6	10.2						
13	8.3	6.2	7.4	11.5	9.8	10.6						
14	9.1	6.3	7.7	11.3	9.6	10.2						
15	9.4	7.1	8.2	---	---	---						
16	10.3	7.2	8.3	---	---	---						
17	9.9	6.2	8.2	---	---	---						
18	10.6	6.5	7.9	---	---	---						
19	10.2	6.3	8.7	---	---	---						
20	10.7	7.9	9.4	---	---	---						
21	11.0	7.8	9.4	---	---	---						
22	11.2	8.4	9.5	---	---	---						
23	9.9	7.4	9.2	10.9	9.6	10.2						
24	9.7	9.3	9.5	9.9	9.3	9.7						
25	9.9	9.2	9.5	11.8	9.6	10.9						
26	10.0	9.0	9.5	11.8	10.9	11.4						
27	10.5	9.0	9.7	11.6	10.4	11.1						
28	10.4	8.1	9.4	10.8	10.4	10.6						
29	10.1	8.5	9.2	11.0	10.6	10.9						
30	10.8	8.8	9.6	11.6	10.8	11.2						
31	9.8	9.4	---	---	---	---						
MONTH	11.2	4.8	8.5	12.1	7.7	10.5						

01480617 WEST BRANCH BRANDYWINE CREEK AT MODENA, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1				---	---	---	---	---	---	11.7	9.0	10.3
2				---	---	---	---	---	---	12.1	9.0	10.5
3				---	---	---	---	---	---	11.2	9.1	9.9
4				---	---	---	---	---	---	---	---	---
5				---	---	---	---	---	---	---	---	---
6				---	---	---	---	---	---	---	---	---
7				---	---	---	---	---	---	---	---	---
8				13.2	11.8	12.6	---	---	---	---	---	---
9				---	---	---	---	---	---	---	---	---
10				---	---	---	12.7	10.9	11.8	---	---	---
11				---	---	---	12.8	10.7	11.7	10.6	8.6	9.6
12				---	---	---	12.6	10.2	11.4	10.0	8.6	9.2
13				---	---	---	12.0	9.9	10.8	10.4	8.3	9.3
14				---	---	---	11.2	10.1	10.6	10.5	8.4	9.4
15				13.7	11.9	13.1	11.6	10.4	11.0	10.8	8.9	9.9
16				13.1	12.1	12.6	11.2	10.2	10.8	11.1	9.4	10.2
17				13.1	11.6	12.4	11.4	9.6	10.6	11.2	8.7	10.1
18				---	---	---	11.5	10.0	10.7	11.0	8.8	9.9
19				---	---	---	11.6	10.1	10.7	10.8	8.3	9.6
20				---	---	---	11.7	9.8	10.7	10.4	7.6	9.0
21				---	---	---	11.7	9.9	10.7	10.2	7.4	8.7
22				---	---	---	12.2	10.1	11.1	10.2	6.7	8.5
23				---	---	---	12.0	10.4	11.1	9.4	6.8	7.8
24				---	---	---	11.9	10.7	11.2	9.6	7.5	8.6
25				---	---	---	12.2	10.5	11.2	9.8	7.0	8.5
26				---	---	---	12.3	9.2	10.9	9.4	6.3	8.0
27				---	---	---	11.0	8.8	10.4	9.4	6.8	8.1
28				---	---	---	12.1	9.1	10.5	8.8	5.1	7.8
29				---	---	---	11.8	9.0	10.3	8.4	4.8	6.7
30				---	---	---	11.1	9.0	10.0	8.8	8.3	8.6
31				---	---	---	---	---	---	9.1	8.4	8.8
MONTH				13.7	11.6	12.7	12.8	8.8	10.9	12.1	6.7	9.0

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	9.3	8.1	8.7	---	---	---	9.4	7.0	8.1	9.1	5.7	7.2
2	9.1	7.9	8.5	---	---	---	9.1	6.9	7.9	9.0	6.1	7.3
3	9.0	7.8	8.4	9.5	8.6	9.1	8.9	7.0	7.7	9.0	5.6	7.1
4	10.4	7.9	8.8	9.5	8.3	9.0	8.8	6.6	7.7	8.4	5.8	7.2
5	10.3	7.8	9.2	9.1	8.1	8.6	8.5	6.6	7.4	9.7	7.5	8.3
6	10.0	7.4	8.7	9.2	8.5	8.9	9.2	6.7	7.7	9.9	7.4	8.4
7	9.8	6.9	8.4	---	---	---	9.1	6.5	7.7	10.2	7.2	8.6
8	9.5	6.7	8.1	---	---	---	9.3	6.4	7.7	10.7	7.2	8.7
9	9.3	6.4	7.8	---	---	---	9.2	6.0	7.5	10.3	7.1	8.6
10	9.3	6.3	7.7	8.6	8.0	8.3	8.3	5.9	7.1	9.8	7.0	8.1
11	9.2	5.9	7.4	8.5	7.3	8.0	8.4	6.4	7.4	10.3	6.7	8.2
12	9.0	6.0	7.5	7.9	7.3	7.7	8.2	6.6	7.3	10.1	6.4	8.0
13	9.1	5.7	7.2	8.2	7.3	7.7	8.7	6.5	7.5	10.0	6.3	8.0
14	8.1	5.8	7.1	8.1	7.1	7.7	8.8	6.3	7.5	9.2	5.9	7.3
15	8.4	5.9	7.4	8.1	6.9	7.6	8.8	6.2	7.4	9.0	5.9	7.5
16	8.9	6.7	7.6	7.9	6.9	7.4	8.8	5.9	7.3	10.0	7.4	8.6
17	8.1	7.1	7.7	8.1	6.9	7.5	8.6	5.8	7.2	10.3	7.3	8.6
18	8.6	7.3	8.2	7.9	7.0	7.5	9.0	6.1	7.4	10.7	7.0	8.7
19	8.7	7.6	8.1	8.5	7.2	7.9	8.4	6.2	7.4	10.3	6.8	8.3
20	8.8	7.3	8.1	8.5	7.2	7.9	9.4	7.1	7.9	10.2	6.0	8.0
21	9.0	7.0	8.0	8.2	7.3	7.8	9.9	7.2	8.4	10.0	5.9	7.6
22	8.9	6.8	7.8	8.5	7.3	7.9	10.0	6.9	8.4	10.0	5.8	7.7
25	---	---	---	8.4	6.8	7.5	9.5	6.8	8.0	19.9	5.5	7.5
26	---	---	---	8.7	6.6	7.7	9.5	6.8	7.9	9.3	5.6	7.1
27	---	---	---	7.9	6.6	7.6	9.7	6.3	7.7	10.3	6.3	8.1
28	---	---	---	8.6	7.8	8.1	9.1	6.2	7.4	9.4	7.0	8.5
29	---	---	---	9.0	7.6	8.3	8.6	6.1	7.1	10.3	7.6	8.9
30	---	---	---	8.9	7.4	8.2	8.7	5.7	7.0	10.1	7.2	8.6
31	---	---	---	9.3	7.3	8.2	8.8	5.8	6.9	---	---	---
MONTH	10.4	5.8	8.0	9.5	6.6	8.0	10.0	5.7	7.6	10.7	5.5	8.0

01480675 MARSH CREEK NEAR GLENMOORE, PA

LOCATION.--Lat 40°05'52", long 75°44'31", Chester County, Hydrologic Unit 02040205, on left bank, 200 ft (60 m) north of Pennsylvania Turnpike, 1.2 mi (1.9 km) downstream from Lyons Run, 1.8 mi (2.9 km) upstream from Black Horse Creek, and 3 mi (5 km) northeast of Glenmoore.

DRAINAGE AREA.--8.57 mi^2 (22.20 km^2).

PERIOD OF RECORD.--July 1966 to current year.

REVISED RECORDS.--WDR PA-74-1: 1967(M), 1971-72(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 450 ft (137 m), from topographic map.

REMARKS.--Records good, except periods of ice which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years, 13.3 ft^3/s (0.377 m^3/s), 21.08 in/yr (535 mm/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 946 ft^3/s (26.8 m^3/s) June 22, 1972, gage height, 4.68 ft (1.426 m); minimum, 0.3 ft^3/s (0.008 m^3/s) Aug. 31, 1966, gage height, 0.98 ft (0.299 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 130 ft^3/s (3.68 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 13	0330	*426	12.1	*3.29	1.003	May 30	0300	159	4.50	2.45	0.747
Feb. 15	1600	294	8.33	2.89	0.881	July 1	2000	346	9.80	3.05	0.930
Apr. 5	1930	204	5.78	2.60	0.792	July 7	1400	263	7.45	2.79	0.850
May 4	1330	176	4.98	2.51	0.765						

Minimum discharge, 1.1 ft^3/s (0.031 m^3/s) Oct 10, 11, gage height, 1.20 ft (0.366 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.3	14	14	10	18	32	19	25	175	9.0	3.5
2	2.6	2.3	10	14	9.4	17	24	15	19	152	8.7	3.4
3	2.3	2.4	11	15	12	16	22	19	18	31	8.9	4.4
4	1.7	2.7	35	15	57	15	27	130	17	14	8.7	10
5	1.5	2.4	52	17	44	24	144	58	15	12	14	9.2
6	1.7	2.4	20	18	18	42	109	25	14	15	12	5.7
7	1.5	2.3	23	18	13	24	44	23	13	190	9.3	4.1
8	1.3	2.2	15	15	10	16	32	36	13	96	12	3.7
9	1.2	2.1	11	14	9.4	14	28	58	12	23	10	3.4
10	1.2	3.5	11	16	11	16	25	26	11	17	8.6	3.7
11	1.2	11	9.8	20	25	16	24	21	11	31	9.6	4.0
12	3.2	12	107	18	36	15	23	21	10	24	12	4.0
13	6.0	7.3	305	15	24	20	23	20	9.8	15	9.2	3.7
14	5.5	4.5	141	13	39	46	25	18	12	13	8.2	3.6
15	3.7	15	57	12	213	47	27	17	11	12	7.0	6.0
16	2.5	80	33	11	153	44	43	16	9.6	11	6.1	7.9
17	2.0	36	26	11	55	42	39	15	11	12	7.5	5.6
18	1.8	11	22	11	37	26	27	15	28	15	6.1	4.0
19	5.5	7.4	21	10	29	22	23	18	31	15	6.3	3.5
20	6.0	5.8	16	10	25	20	21	17	16	12	6.0	3.3
21	3.7	42	14	11	21	37	19	14	11	19	5.7	3.0
22	2.5	32	69	11	19	48	17	13	9.2	17	4.6	2.9
23	7.9	12	88	11	20	23	29	17	8.8	13	6.2	2.8
24	42	9.8	29	12	97	18	29	23	15	12	7.2	2.8
25	34	49	16	14	50	19	22	14	27	10	5.7	2.8
26	12	61	13	20	28	19	18	14	14	9.1	4.6	2.8
27	6.4	17	11	29	22	17	16	20	9.7	28	4.1	2.5
28	4.0	16	35	29	28	41	15	21	8.8	28	3.9	5.4
29	3.2	58	77	17	28	92	53	93	7.6	13	4.0	7.6
30	2.6	35	36	13	---	66	29	138	8.8	11	4.0	5.9
31	2.4	---	18	11	---	55	---	61	---	9.6	3.9	---
TOTAL	175.2	546.4	1345.8	465	1142.8	935	1009	1015	426.3	1054.7	233.1	135.2
MEAN	5.65	18.2	43.4	15.0	39.4	30.2	33.6	32.7	14.2	34.0	7.52	4.51
MAX	42	80	305	29	213	92	144	138	31	190	14	10
MIN	1.2	2.1	9.8	10	9.4	14	15	13	7.6	9.1	3.9	2.5
CFSM	.66	2.12	5.06	1.75	4.60	3.52	3.92	3.82	1.66	3.97	.88	.53
IN.	.76	2.37	5.84	2.02	4.96	4.06	4.38	4.41	1.85	4.58	1.01	.59

CAL YR 1983 TOTAL 6454.0 MEAN 17.7 MAX 305 MIN 1.2 CFSM 2.07 IN. 28.02
WTR YR 1984 TOTAL 8483.5 MEAN 23.2 MAX 305 MIN 1.2 CFSM 2.71 IN. 36.82

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°03'19", long 75°43'00", Chester County, Hydrologic Unit 02040205, on left bank 1,000 ft (305 m) downstream from Marsh Creek Dam, 0.2 mi (0.3 km) upstream from mouth and 3.0 mi (4.8 km) north of Downingtown.

DRAINAGE AREA.--20.3 mi² (52.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 280 ft (85 m), from topographic map.

REMARKS.--Records good. Flow completely regulated since November 1973 by Marsh Creek Reservoir (station 01480684) 1,000 ft (305 m) upstream.

AVERAGE DISCHARGE.--11 years, 34.4 ft³/s (0.974 m³/s), 23.01 in/yr (584 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 560 ft³/s (15.9 m³/s) Dec. 14, 1983, gage height, 3.70 ft (1.128 m), from rating curve extended above 200 ft³/s (5.7 m³/s); minimum daily, 0.31 ft³/s (0.009 m³/s) Dec. 22, 23, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 560 ft³/s (15.9 m³/s) Dec. 14, gage height, 3.70 ft (1.128 m); minimum daily, 2.9 ft³/s (0.082 m³/s) Oct. 26-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	14	3.5	78	49	70	83	63	246	89	17	11
2	13	15	3.6	74	33	68	142	60	86	315	18	11
3	13	15	3.6	215	33	66	131	58	80	253	19	11
4	13	15	4.2	313	33	65	69	84	76	82	19	14
5	13	15	8.2	311	46	64	100	109	73	75	21	14
6	13	15	14	203	59	66	188	106	47	72	22	14
7	13	15	17	63	61	66	225	97	14	141	22	13
8	13	14	25	44	61	66	196	94	15	304	24	12
9	13	15	36	13	61	65	264	98	18	326	24	11
10	13	15	34	12	62	64	240	94	20	95	23	12
11	13	10	33	11	61	60	75	86	21	11	22	13
12	13	3.4	57	11	61	57	8.3	85	22	16	22	12
13	12	3.4	235	14	61	57	6.4	80	22	18	22	12
14	6.0	3.4	326	16	62	59	6.4	76	24	19	22	12
15	6.0	4.1	346	19	65	64	12	80	24	21	21	13
16	8.2	4.0	284	36	79	69	41	31	23	22	18	13
17	12	3.4	124	47	91	76	71	27	23	22	16	13
18	14	3.4	110	42	92	75	78	28	59	25	16	12
19	16	3.3	98	42	89	74	72	30	85	27	16	12
20	15	3.4	85	42	85	132	61	32	79	27	16	11
21	14	3.9	76	42	81	170	60	34	75	34	14	10
22	14	3.4	65	32	77	169	58	34	51	39	12	9.9
23	10	3.3	74	20	74	122	60	35	8.7	39	13	9.6
24	4.4	3.5	87	20	91	56	62	39	13	36	13	9.5
25	3.2	4.2	77	20	98	53	62	40	24	33	13	9.4
26	2.9	3.5	71	22	94	53	59	40	26	46	13	9.2
27	2.9	3.3	67	31	88	53	58	44	26	92	12	8.3
28	2.9	3.7	73	52	118	48	56	45	25	89	12	9.6
29	6.2	3.8	94	59	131	45	61	74	24	80	12	11
30	15	3.6	92	59	---	76	64	123	24	57	12	11
31	14	---	85	59	---	81	---	298	---	24	12	---
TOTAL	334.7	226.0	2709.1	2022	2096	2309	2669.1	2224	1353.7	2529	538	343.5
MEAN	10.8	7.53	87.4	65.2	72.3	74.5	89.0	71.7	45.1	81.6	17.4	11.4
MAX	16	15	346	313	131	170	264	298	246	326	24	14
MIN	2.9	3.3	3.5	11	33	45	6.4	27	8.7	11	12	8.3
MEAN‡	17.0	39.4	101	35.3	101	76.3	88.2	85.0	31.2	79.6	17.6	11.4
CFSM‡	.84	1.94	4.98	1.74	4.98	3.76	4.34	4.19	1.54	3.92	.87	.56
IN‡	.95	2.20	5.63	1.97	5.63	4.25	4.92	4.74	1.74	4.44	.98	.64

CAL YR 1983 TOTAL 14646.3 MEAN 40.1 MAX 346 MIN 1.5 MEAN‡ 43.9 CFSM‡ 2.16 IN‡ 29.34
WTR YR 1984 TOTAL 19354.1 MEAN 52.9 MAX 346 MIN 2.9 MEAN‡ 56.9 CFSM‡ 2.80 IN‡ 38.08

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1973 to current year.

INSTRUMENTATION.--Temperature recorder October 1973 to current year.

REMARKS.--Interruptions in the record were due to malfunctions of the instruments.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 31.5°C Aug. 2, 1975, July 19, 1977; minimum, freezing point February 3, 1980.

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	18.0	17.0	17.5	13.0	12.0	12.0	9.0	7.5	8.0	2.5	1.5	2.0
2	19.0	17.0	18.0	13.0	11.5	12.0	8.0	6.5	7.5	2.5	2.0	2.0
3	18.5	17.0	17.5	13.0	12.0	12.5	8.0	7.0	7.5	3.0	2.0	2.5
4	19.0	17.0	17.5	12.5	11.5	12.0	7.5	6.0	7.0	3.0	2.5	3.0
5	18.5	17.0	17.5	12.0	11.5	11.5	8.0	7.5	7.5	3.0	2.5	3.0
6	19.5	17.0	18.5	12.0	11.0	11.5	8.0	7.5	7.5	3.0	2.5	3.0
7	19.5	17.5	18.0	12.0	11.0	11.5	7.5	5.5	6.5	3.0	2.0	2.5
8	18.5	17.0	17.5	12.0	11.0	11.5	7.0	4.5	6.0	2.5	2.0	2.5
9	18.5	17.0	17.5	12.0	10.5	11.0	7.0	5.0	6.0	3.0	2.0	2.5
10	18.0	17.0	17.5	11.0	10.5	11.0	7.5	6.0	6.5	3.5	1.5	2.5
11	17.0	17.0	17.0	11.5	11.0	11.5	6.5	5.0	6.0	3.0	2.0	2.5
12	17.0	17.0	17.0	11.0	9.5	10.5	8.0	6.0	7.0	3.0	2.0	2.5
13	17.0	16.5	17.0	11.0	9.0	10.0	8.0	7.0	7.5	2.5	2.0	2.5
14	18.0	16.0	16.5	10.0	9.5	9.5	8.0	7.0	7.0	3.0	2.0	2.5
15	17.5	15.5	16.5	10.0	9.5	9.5	7.0	6.5	7.0	2.5	2.0	2.5
16	17.5	15.5	16.0	11.0	9.5	10.0	7.5	6.5	7.0	2.5	2.0	2.0
17	16.5	15.5	16.0	10.0	9.0	9.5	6.5	5.5	6.5	2.5	2.0	2.0
18	16.5	16.0	16.0	10.5	8.5	9.5	6.5	5.0	6.0	2.5	2.0	2.0
19	16.0	15.5	16.0	10.5	9.0	9.5	6.5	4.0	5.5	2.5	2.0	2.0
20	16.0	15.0	15.5	11.0	9.0	9.5	5.5	4.0	5.0	2.5	2.0	2.5
21	16.0	14.5	15.0	11.0	9.0	10.0	5.0	3.0	4.5	2.5	2.0	2.0
22	15.5	14.0	14.5	12.0	8.5	9.5	5.0	3.0	4.0	3.0	2.0	2.5
23	14.5	14.0	14.5	10.5	9.0	9.5	5.0	3.0	4.0	3.0	2.0	2.5
24	15.0	13.5	14.5	10.0	9.5	9.5	4.5	2.5	3.5	2.5	2.5	2.5
25	14.0	13.5	13.5	10.0	8.0	9.0	3.5	1.5	2.5	3.0	2.5	2.5
26	15.0	13.0	14.0	10.0	8.0	8.5	2.0	1.5	1.5	3.5	2.5	2.5
27	14.0	12.5	13.0	10.5	8.0	9.0	2.0	1.5	2.0	3.0	2.0	2.5
28	15.0	12.0	13.0	9.0	8.5	8.5	2.0	1.5	2.0	3.0	2.5	2.5
29	14.0	12.0	13.0	10.0	8.0	9.0	2.0	1.5	2.0	3.0	2.5	2.5
30	13.5	12.0	12.5	9.5	7.5	8.5	2.0	1.0	2.0	3.0	2.5	2.5
31	13.5	12.0	12.5	---	---	---	2.5	1.5	2.0	3.5	2.5	3.0
MONTH	19.5	12.0	16.0	13.0	7.5	10.0	9.0	1.0	5.5	3.5	1.5	2.5

01480685 MARSH CREEK NEAR DOWNINGTOWN, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1	3.0	2.5	3.0	4.0	2.5	3.0	7.5	4.0	6.0	13.5	11.0	12.5
2	3.0	2.5	3.0	5.0	2.5	3.5	7.0	4.0	6.0	13.5	11.0	12.0
3	3.0	2.0	2.5	4.5	2.5	3.0	7.5	6.0	6.5	12.5	11.0	11.5
4	3.0	2.0	2.5	5.0	2.5	3.5	8.0	6.5	7.0	14.0	11.5	12.5
5	3.0	2.5	2.5	3.5	2.5	3.0	8.5	4.5	7.0	14.5	12.0	13.0
6	3.5	2.5	3.0	5.0	3.0	4.0	7.5	6.5	7.0	13.5	12.5	13.0
7	3.0	2.5	2.5	5.0	3.0	3.5	7.5	6.0	7.0	13.0	12.5	13.0
8	3.5	2.5	3.0	3.0	2.5	3.0	8.5	6.0	7.5	14.0	12.5	13.0
9	3.5	3.0	3.0	3.0	2.0	2.5	8.5	6.5	7.5	14.0	10.5	13.0
10	3.5	2.5	3.0	3.5	2.5	3.0	9.0	7.0	8.0	14.5	12.5	13.5
11	3.5	2.5	3.0	3.5	2.5	3.0	11.0	7.0	8.5	13.5	12.5	13.0
12	4.0	3.0	3.5	4.0	2.0	3.0	11.0	7.0	8.5	14.5	13.0	13.5
13	4.5	3.0	3.5	3.0	2.0	2.5	10.0	7.5	8.5	15.5	13.5	14.0
14	5.0	3.0	4.0	5.0	2.0	3.0	9.5	8.0	9.0	15.5	14.0	14.5
15	4.5	3.0	4.0	5.5	2.0	3.5	9.5	8.5	9.0	15.5	14.0	14.5
16	5.5	3.5	4.5	5.5	3.0	4.0	10.0	8.5	9.5	15.0	14.0	14.0
17	5.0	3.5	4.0	5.0	3.5	4.0	10.0	8.5	9.0	15.5	13.5	14.5
18	5.0	3.5	4.0	5.5	4.0	4.5	11.0	9.0	10.0	14.5	13.5	14.0
19	5.5	3.5	4.5	5.5	4.0	5.0	10.5	9.5	10.0	15.0	12.0	14.0
20	5.0	3.5	4.5	5.5	3.5	4.5	12.0	9.0	10.5	---	---	---
21	5.0	3.0	4.0	5.5	4.5	5.0	12.0	10.0	11.0	---	---	---
22	5.5	3.0	4.0	5.5	4.0	4.5	11.0	9.0	10.0	---	---	---
23	5.0	3.0	4.0	6.5	3.5	5.0	10.0	9.0	9.5	---	---	---
24	6.0	4.5	5.0	6.5	3.5	5.0	10.5	9.5	10.0	---	---	---
25	5.5	4.0	4.5	6.0	5.0	5.5	10.5	9.5	10.0	---	---	---
26	5.5	3.0	4.0	7.0	4.5	5.5	11.5	9.5	10.5	---	---	---
27	5.0	3.0	4.0	7.0	4.0	5.5	11.0	10.0	10.5	---	---	---
28	4.5	3.0	4.0	6.0	4.5	5.5	11.0	10.0	10.5	---	---	---
29	4.5	3.0	4.0	4.5	2.5	4.0	13.0	10.0	11.5	---	---	---
30	---	---	---	6.0	3.5	5.0	11.5	10.5	11.0	---	---	---
31	---	---	---	6.5	4.0	5.5	---	---	---	---	---	---
MONTH	6.0	2.0	3.5	7.0	2.0	4.0	13.0	4.0	9.0	15.5	10.5	13.5

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1							---	---	---	25.5	22.5	23.5
2							---	---	---	24.5	22.0	23.5
3							---	---	---	25.5	23.0	24.0
4							---	---	---	24.5	21.5	23.5
5							---	---	---	24.5	21.0	23.0
6							---	---	---	24.0	21.5	22.5
7							---	---	---	24.0	21.5	22.5
8							---	---	---	23.0	2 .0	22.0
9							---	---	---	22.5	21.0	21.5
10							---	---	---	22.5	21.5	22.0
11							---	---	---	23.5	21.5	22.0
12							---	---	---	23.5	21.5	22.5
13							---	---	---	23.5	21.5	22.5
14							---	---	---	24.0	22.0	23.0
15							---	---	---	23.0	21.0	22.5
16							---	---	---	22.5	20.5	21.5
17							---	---	---	22.5	20.0	21.0
18							---	---	---	22.0	20.0	20.5
19							---	---	---	22.0	19.0	20.5
20							---	---	---	22.5	20.0	21.0
21							---	23.5	---	22.5	20.5	21.0
22							25.5	23.5	24.5	22.0	20.0	21.0
23							25.5	23.5	24.5	22.5	20.0	21.0
24							25.5	22.0	24.5	24.5	21.0	22.0
25							25.5	21.5	24.0	23.5	21.0	22.5
26							26.5	21.0	24.5	22.0	20.0	21.5
27							25.5	22.0	24.0	20.5	19.0	20.0
28							24.5	22.0	23.5	19.0	18.5	18.5
29							24.5	22.5	24.0	20.0	18.5	19.0
30							25.0	22.5	24.0	20.0	18.0	18.5
31							25.5	23.0	24.0	---	---	---
MONTH							26.5	21.0	24.0	25.5	18.0	21.5

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA

LOCATION.--Lat 40°02'05", long 75°42'32", Chester County, Hydrologic Unit 02040205, on right bank 20 ft (6 m) downstream from bridge on Dowlin Forge Road, 200 ft (60 m) east of State Highway 282, 0.4 mi (0.6 km) downstream from Shamona Creek, 1.5 mi (2.4 km) downstream from Marsh Creek, 2.0 mi (3.2 km) upstream from Beaver Creek, and 2.2 mi (3.5 km) north of Downingtown.

DRAINAGE AREA.--60.6 mi² (157.0 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Occasional low-flow measurements, water years 1948-57, October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 270 ft (82 m), from topographic map. Prior to July 30, 1966, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) 1.9 mi (3.1 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--19 years, 95.0 ft³/s (2.690 m³/s), 21.29 in/yr (541 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,070 ft³/s (229 m³/s) June 22, 1972, gage height, 12.06 ft (3.676 m), from floodmark, from rating curve extended above 5,000 ft³/s (140 m³/s); minimum, 7.2 ft³/s (0.20 m³/s) Sept. 2, 3, 11, 12, 13, 1966, gage height, 1.80 ft (0.549 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,410 ft³/s (125 m³/s) July 7, minimum daily, 24 ft³/s (0.68 m³/s) Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	38	61	127	87	140	208	162	380	824	68	39
2	32	38	53	121	71	133	238	147	168	859	68	37
3	29	38	56	249	104	128	229	154	155	424	68	43
4	27	39	260	354	363	123	194	641	144	154	68	59
5	28	37	112	352	156	158	703	274	131	136	89	46
6	30	36	97	256	125	207	498	216	107	166	71	42
7	28	36	132	109	110	153	416	198	74	1330	71	40
8	27	35	87	91	99	137	354	269	73	701	87	38
9	27	35	87	61	97	130	405	314	72	461	67	36
10	27	41	83	73	108	120	385	202	71	198	65	40
11	27	74	79	91	177	120	205	178	71	383	91	43
12	42	58	332	62	172	118	121	176	69	145	76	40
13	54	37	662	58	147	151	119	161	69	102	76	40
14	41	29	604	54	291	271	126	150	92	90	66	40
15	26	161	504	52	1230	225	143	142	75	84	62	52
16	24	325	383	74	581	241	236	120	70	83	57	47
17	30	72	207	90	267	237	220	94	77	85	56	42
18	31	49	178	82	226	184	211	93	226	103	53	40
19	60	42	159	72	194	169	201	100	197	91	54	39
20	46	38	139	66	175	213	172	97	138	82	55	37
21	35	138	126	60	160	317	159	94	121	127	47	35
22	33	66	461	57	148	318	151	92	97	116	44	34
23	71	50	234	56	163	224	197	109	55	103	51	33
24	229	49	167	67	536	135	193	121	120	92	51	33
25	74	333	126	100	235	133	172	98	153	85	46	33
26	47	112	110	122	201	130	155	102	84	90	44	33
27	36	68	100	149	173	122	147	121	74	336	43	30
28	29	106	327	144	250	272	141	126	70	169	42	48
29	31	241	301	111	219	385	270	621	68	140	42	47
30	40	81	156	104	---	321	176	639	68	114	43	39
31	38	---	134	102	---	270	---	495	---	79	41	---
TOTAL	1328	2502	6517	3566	6865	5985	7145	6506	3369	7952	1862	1205
MEAN	42.8	83.4	210	115	237	193	238	210	112	257	60.1	40.2
MAX	229	333	662	354	1230	385	703	641	380	1330	91	59
MIN	24	29	53	52	71	118	119	92	55	79	41	30
MEAN‡	49.0	115	223	85.1	266	19	237	223	98.1	255	60.3	40.2
CFSM‡	.81	1.90	3.68	1.40	4.38	3.22	3.91	3.68	1.62	4.21	1.00	.66
IN‡	.92	2.15	4.16	1.59	4.97	3.64	4.43	4.16	1.83	4.76	1.13	.75

CAL YR 1983 TOTAL 43164 MEAN 118 MAX 1000 MIN 22 MEAN‡ 122 CFSM‡ 2.01 IN‡ 27.34
WTR YR 1984 TOTAL 54802 MEAN 150 MAX 1330 MIN 24 MEAN‡ 154 CFSM‡ 2.54 IN‡ 34.49

‡ Adjusted for change in contents in Marsh Creek Reservoir.

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1972 to current year.
pH: February 1972 to current year.
WATER TEMPERATURES: February 1972 to current year.
DISSOLVED OXYGEN: February 1972 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1972.

REMARKS.--Not operated Nov. 11 to Mar. 21. Other interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 652 micromhos Feb. 6, 1977; minimum, 67 micromhos July 1, 1984.
pH: Maximum, 9.9 May 13, June 5, 1973; minimum, 5.4 Oct. 24, 26, 1973.
WATER TEMPERATURES: Maximum, 33.0°C July 19, 1977; minimum, 0.0°C on many days during winter months. of most years.
DISSOLVED OXYGEN: Maximum, 16.9 mg/L Mar. 28, 1981, Mar. 28, 1982, minimum, 0.8 mg/L July 23, 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)
OCT							
04...	1400	46	302	6.8	20.0	9.5	190
11...	1400	43	309	6.7	15.5	7.6	810
18...	1330	43	296	6.8	16.0	11.3	23000
25...	1330	161	238	6.5	12.5	9.4	36000
NOV							
01...	1400	54	282	6.8	10.5	11.7	14000
15...	1130	48	272	6.7	6.5	10.9	32000
22...	1300	126	236	7.6	9.5	10.6	11000
DEC							
01...	1300	126	245	6.7	6.0	11.9	--
MAR							
05...	1400	238	213	7.3	2.0	13.7	--
16...	1100	270	199	6.7	3.5	13.2	--
20...	1100	203	224	6.8	5.5	13.2	6000
26...	1300	233	213	7.2	9.0	13.7	95
APR							
02...	1200	321	197	6.9	8.0	13.4	1100
09...	1300	565	181	6.8	10.0	12.1	330
16...	1300	429	190	6.7	9.5	11.6	3300
24...	1100	283	202	6.9	9.0	12.8	--
MAY							
02...	1200	215	213	7.2	12.5	14.2	450
09...	1130	499	171	6.5	12.5	10.6	9400
15...	1130	235	209	6.8	12.5	11.8	2800
22...	1500	158	224	7.7	20.0	12.2	470
30...	1400	1170	148	6.3	15.0	9.7	21000
JUN							
04...	1330	250	207	6.8	17.5	10.6	4600
12...	1030	132	230	6.9	20.0	9.6	6000
18...	1330	447	174	6.4	17.0	8.5	90000
26...	1330	148	231	6.9	19.5	8.8	4000
JUL							
03...	1130	621	165	6.2	17.0	9.6	4000
09...	1330	610	179	6.8	16.0	9.4	2400
31...	1400	163	224	7.1	21.5	9.7	3100
AUG							
06...	1300	193	228	7.6	23.0	10.4	2900
13...	1300	136	239	7.2	23.0	8.8	1000
21...	1500	89	244	7.8	21.5	8.3	--
28...	1400	79	271	7.7	22.0	7.5	400
SEP							
05...	1430	85	267	7.2	20.0	10.1	32000
10...	1200	70	265	7.0	18.0	9.3	980
18...	1500	68	--	7.6	17.0	11.0	6200
25...	1400	58	285	7.2	21.5	9.9	1400

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA

LOCATION.--Lat 39°58'07", long 75°40'25", Chester County, Hydrologic Unit 02040205, on left bank at downstream side of Sugars Bridge (State Highway 322), 2,000 ft (610 m) upstream from Valley Creek, 1.5 mi (2.4 km) north of Marshallton, and 3.3 mi (5.3 km) southeast of Downingtown.

DRAINAGE AREA.--89.9 mi² (232.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1972 to current year.

REVISED RECORDS.--WDR PA-75-1: 1972(P), 1973, 1974.

GAGE.--Water-stage recorder. Altitude of gage is 195 ft (59.4 m), from topographic map. Feb. 1 to Apr. 10, June 25 to Nov. 17, 1972, nonrecording gage at same site and datum.

REMARKS.--Records good, except for periods of ice effect or missing record which are fair. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) about 7.5 mi (12.1 km) upstream.

AVERAGE DISCHARGE.--12 years, 163 ft³/s (4.616 m³/s), 24.60 in/yr (625 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,160 ft³/s (231 m³/s) June 22, 1972, gage height, 13.4 ft (4.08 m), from floodmark, from rating curve extended above 3,600 ft³/s (102 m³/s) on basis of slope-area measurement of peak flow; minimum, 22 ft³/s (0.62 m³/s) Sept. 25, 1980; minimum gage height, 1.97 ft (0.600 m) July 25, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,980 ft³/s (169 m³/s) Dec. 12, July 7, gage height, 12.01 ft (3.661 m); July 7; minimum daily, 36 ft³/s (1.02 m³/s) Oct. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	51	127	228	136	238	353	237	565	1200	137	69
2	55	52	107	217	111	223	365	211	289	1030	134	68
3	47	52	115	332	140	211	368	213	268	583	134	80
4	43	56	517	475	613	203	317	967	246	236	131	119
5	42	52	279	474	278	263	1320	457	222	214	152	84
6	47	49	210	378	207	333	769	352	195	276	133	74
7	44	48	295	194	171	249	593	323	144	2190	134	71
8	41	46	176	172	151	222	505	410	139	916	164	67
9	41	46	172	124	147	215	561	496	135	623	125	65
10	40	68	162	135	164	209	523	329	131	342	122	78
11	40	143	148	193	264	204	330	290	130	795	151	79
12	79	117	1460	120	275	201	218	290	126	324	136	72
13	134	64	2330	110	227	260	210	265	125	220	135	70
14	72	49	1200	100	384	460	218	246	166	191	119	70
15	45	234	762	98	1990	400	239	231	129	176	113	89
16	36	729	609	120	956	420	360	209	121	185	105	81
17	40	160	365	145	471	410	328	169	131	216	101	70
18	41	91	316	134	391	330	306	165	399	205	95	67
19	110	73	284	125	333	300	292	177	449	182	103	66
20	72	64	248	115	301	400	253	169	218	158	98	63
21	50	416	219	105	270	654	233	160	186	309	86	61
22	45	132	886	98	248	478	218	155	160	230	83	58
23	155	88	430	94	251	354	295	182	107	200	90	57
24	557	82	301	90	835	236	286	205	250	175	92	56
25	149	628	252	160	386	237	251	159	298	159	81	56
26	89	291	230	200	327	232	224	156	150	154	79	56
27	61	140	198	246	284	214	209	192	130	639	77	51
28	48	172	499	239	280	457	200	195	122	305	76	87
29	43	510	500	170	333	725	418	972	119	242	77	82
30	56	180	280	155	---	542	262	1060	124	207	77	65
31	52	---	242	152	---	449	---	680	---	154	74	---
TOTAL	2428	4883	13919	5698	10924	10329	11024	10322	5974	13036	3414	2131
MEAN	78.3	163	449	184	377	333	367	333	199	421	110	71.0
MAX	557	729	2330	475	1990	725	1320	1060	565	2190	164	119
MIN	36	46	107	90	111	201	200	155	107	154	74	51
MEAN‡	84.5	195	462	154	406	335	366	346	185	419	110	71.0
CFSM‡	.94	2.17	5.14	1.71	4.52	3.73	4.07	3.85	2.06	4.66	1.22	.79
IN‡	1.06	2.45	5.82	1.94	5.11	4.22	4.61	4.36	2.33	5.27	1.38	.89

```
CAL YR 1983   TOTAL    74812 MEAN   205 MAX   2330 MIN   35   MEAN‡  209   CFSM‡  2.32   IN‡  31.52
WTR YR 1984   TOTAL    94082 MEAN   257 MAX   2330 MIN   36   MEAN‡  261   CFSM‡  2.90   IN‡  39.44
```

‡ Adjusted for change in contents in Marsh Creek Reservoir.

01480700 EAST BRANCH BRANDYWINE CREEK NEAR DOWNINGTOWN, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1970 to current year.

WATER QUAILTY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
NOV										
04...	1230	40	169	7.6	6.0	9.0	2.5	11.8	61	15

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV									
04...	16	5.2	9.1	2.2	46	18	16	12	111

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
NOV									
04...	110	1.5	.010	1.5	.230	1.3	1.5	3.0	.030

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)
NOV									
04...	16	5.2	9.1	2.2	46	18	16	12	111

DATE	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CYANIDE DIS-SOLVED (MG/L AS CN)	METHY-LENE BLUE ACTIVE SUB-STANCE (MG/L)
NOV									
04...	.020	<.010	<10	--	150	--	140	--	--

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	312	271	292	295	270	283						
2	311	272	294	297	268	284						
3	316	280	303	299	267	286						
4	318	282	305	298	266	285						
5	320	289	307	305	269	292						
6	326	285	308	298	264	284						
7	330	298	317	295	277	288						
8	324	285	309	298	287	287						
9	321	283	305	305	275	290						
10	317	286	305	301	274	---						
11	320	292	308	---	---	---						
12	314	212	280	---	---	---						
13	274	194	237	---	---	---						
14	277	260	118	---	---	---						
15	---	---	---	---	---	---						
16	---	---	---	---	---	---						
17	344	307	137	---	---	---						
18	314	288	305	---	---	---						
19	305	228	255	---	---	---						
20	275	244	259	---	---	---						
21	296	268	283	---	---	---						
22	311	276	294	---	---	---						
23	302	177	252	---	---	---						
24	196	151	171	---	---	---						
25	251	196	224	---	---	---						
26	283	246	261	---	---	---						
27	305	277	292	---	---	---						
28	318	290	305	---	---	---						
29	340	292	312	---	---	---						
30	321	269	288	---	---	---						
31	295	273	285	---	---	---						
MONTH	344	151	273	305	264	287						

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1				---	---	---	196	185	190	212	198	205
2				---	---	---	199	182	190	213	203	207
3				---	---	---	205	182	188	213	203	209
4				---	---	---	208	188	202	199	115	140
5				---	---	---	185	113	137	183	147	171
6				---	---	---	172	124	160	191	182	186
7				---	---	---	177	171	174	196	187	191
8				---	---	---	183	175	179	196	170	187
9				---	---	---	184	171	177	188	156	161
10				---	---	---	188	172	178	197	187	192
11				---	---	---	215	183	195	202	193	198
12				---	---	---	222	211	215	201	195	198
13				---	---	---	222	214	218	206	196	201
14				---	---	---	222	208	215	209	199	204
15				---	---	---	217	204	210	209	201	205
16				---	---	---	211	182	194	224	202	209
17				---	---	---	199	187	193	227	217	221
18				---	---	---	200	191	196	228	217	224
19				---	---	---	201	193	197	226	217	222
20				---	---	---	210	197	203	226	215	221
21				---	---	---	212	202	207	228	217	223
22				189	180	183	211	200	204	---	---	---
23				208	182	190	202	191	196	233	200	222
24				214	200	208	204	194	202	217	195	207
25				214	205	210	209	199	203	224	212	218
26				215	205	210	215	204	209	229	215	221
27				216	208	212	215	207	212	214	197	206
28				216	158	196	217	210	213	213	185	206
29				232	158	184	212	155	179	179	108	150
30				194	173	185	206	196	202	171	127	160
31				189	172	181	---	---	---	183	169	150
MONTH				232	158	196	222	113	195	233	108	197

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	200	171	180	244	67	152	239	218	230	286	261	274
2	206	197	202	150	107	125	236	221	230	279	260	269
3	207	198	203	189	151	165	235	223	231	270	222	253
4	209	200	205	201	188	194	240	219	230	254	211	232
5	210	202	206	203	186	196	238	209	221	270	244	257
6	228	202	210	196	179	190	232	211	221	280	266	272
7	233	223	229	---	---	---	---	---	---	280	264	272
8	237	226	231	---	---	---	---	---	---	290	265	275
9	---	---	230	---	---	---	---	---	---	276	246	261
10	---	---	232	---	---	---	---	---	---	277	249	263
11	235	226	228	---	---	---	---	---	---	272	254	262
12	238	227	231	---	---	---	---	---	---	280	246	262
13	237	220	232	---	---	---	---	---	---	272	246	260
14	231	211	220	---	---	---	338	236	274	265	242	258
15	235	224	230	---	---	---	336	237	289	264	218	242
16	239	224	232	---	---	---	251	234	242	246	218	230
17	236	209	---	---	---	---	253	238	247	261	224	244
18	209	161	---	158	144	150	259	236	251	255	240	248
19	191	82	231	160	150	155	249	231	238	---	---	226
20	203	135	182	151	101	123	253	237	247	301	278	285
21	134	115	120	143	131	136	---	---	---	306	267	283
22	116	96	105	---	---	---	260	241	253	281	249	266
23	117	105	113	218	211	216	264	153	216	278	247	264
24	115	105	104	224	210	218	254	167	195	297	250	277
25	---	---	---	227	209	219	261	241	252	301	251	277
26	238	229	235	227	164	208	264	241	253	281	249	269
27	252	218	238	160	111	141	261	241	253	---	---	---
28	247	233	241	179	161	173	274	247	262	---	---	---
29	250	236	245	191	173	185	278	260	271	---	---	---
30	253	235	245	207	179	193	274	257	268	---	---	---
31	---	---	---	231	194	211	278	258	270	---	---	---
MONTH	253	82	206	244	67	176	338	153	245	306	211	261

PH (UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	6.5	6.4	6.4	6.9	6.5	6.6						
2	6.7	6.4	6.5	6.9	6.6	6.7						
3	6.7	6.4	6.5	6.9	6.6	6.7						
4	6.8	6.4	6.5	6.8	6.5	6.6						
5	6.9	6.4	6.6	6.9	6.5	6.7						
6	7.1	6.4	6.7	7.0	6.5	6.7						
7	7.0	6.4	6.6	7.0	6.5	6.7						
8	7.1	6.4	6.6	7.0	6.5	6.8						
9	7.2	6.4	6.6	7.1	6.5	6.7						
10	6.8	6.3	6.5	6.7	6.5	6.6						
11	6.7	6.4	6.5	---	---	---						
12	7.0	6.5	6.6	---	---	---						
13	6.9	6.4	6.6	---	---	---						
14	6.8	6.7	---	---	---	---						
15	---	---	---	---	---	---						
16	---	---	---	---	---							
17	7.0	6.6	---	---	---	---						
18	7.0	6.5	6.7	---	---	---						
19	6.8	6.5	6.6	---	---	---						
20	7.0	6.5	6.7	---	---	---						
21	7.1	6.5	6.7	---	---	---						
22	7.1	6.5	6.7	---	---	---						
23	6.7	6.4	6.6	---	---	---						
24	6.4	6.2	6.3	---	---	---						
25	6.6	6.3	6.5	---	---	---						
26	6.9	6.6	6.7	---	---	---						
27	6.9	6.6	6.7	---	---	---						
28	6.9	6.6	6.7	---	---	---						
29	6.9	6.6	6.7	---	---	---						
30	6.8	6.5	6.6	---	---	---						
31	6.8	6.5	6.6	---	---	---						
MONTH	7.2	6.2	6.1	7.1	6.5	6.6						

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--CONTINUED

PH (UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1				---	---	---	7.2	6.4	6.7	8.1	6.6	7.2
2				---	---	---	7.3	6.5	6.8	8.1	6.6	7.2
3				---	---	---	7.6	6.5	6.9	7.4	6.5	6.9
4				---	---	---	6.9	6.6	6.7	6.6	6.2	6.4
5				---	---	---	6.6	6.3	6.5	7.0	6.5	6.7
6				---	---	---	6.7	6.4	6.5	6.8	6.5	6.7
7				---	---	---	6.8	6.5	6.6	6.9	6.5	6.6
8				---	---	---	7.0	6.5	6.7	6.8	6.5	6.6
9				---	---	---	6.9	6.5	6.6	6.8	6.5	6.5
10				---	---	---	7.0	6.4	6.7	7.1	6.5	6.7
11				---	---	---	7.2	6.5	6.8	7.3	6.5	6.8
12				---	---	---	7.4	6.6	6.9	7.1	6.6	6.8
13				---	---	---	7.3	6.6	6.8	7.3	6.6	6.8
14				---	---	---	6.9	6.6	6.7	7.4	6.6	6.9
15				---	---	---	7.0	6.6	6.7	7.3	6.5	6.6
16				---	---	---	6.8	6.6	6.7	7.6	6.6	6.9
17				---	---	---	7.5	6.6	6.9	7.6	6.5	7.0
18				---	---	---	7.4	6.6	6.9	7.1	6.5	6.8
19				---	---	---	7.5	6.6	6.9	7.6	6.5	6.9
20				---	---	---	7.7	6.5	7.0	7.9	6.6	7.1
21				---	---	---	8.0	6.6	7.2	7.7	---	---
22				7.4	6.8	7.0	7.9	6.6	7.1	---	6.6	7.3
23				7.3	6.7	7.0	7.2	6.5	6.8	7.0	6.4	6.6
24				7.6	6.7	7.0	7.5	6.6	6.6	7.3	6.4	6.7
25				7.1	6.8	6.9	7.9	6.6	7.1	7.5	6.4	6.8
26				7.5	6.7	7.2	8.[illegible]	6.6	7.3	7.7	6.4	6.9
27				7.5	6.5	6.9	8.[illegible]	6.6	7.4	7.2	6.4	6.7
28				6.7	6.3	6.6	8.3	6.6	7.4	6.6	6.4	6.5
29				6.4	6.3	6.3	7.2	6.4	6.8	6.4	6.0	6.2
30				6.8	6.3	6.5	7.3	6.6	6.9	6.5	6.1	6.4
31				7.0	6.4	6.6	---	---	---	6.6	6.4	6.5
MONTH				7.6	6.3	6.8	8.4	6.3	6.9	8.1	6.0	6.8

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	6.6	6.3	6.5	6.6	5.8	6.2	7.7	6.6	7.0	7.5	6.5	6.9
2	6.9	6.5	6.7	6.9	5.9	6.2	7.6	6.6	6.9	7.6	6.5	6.8
3	6.8	6.5	6.7	6.5	6.2	6.4	7.4	6.6	6.9	7.7	6.5	6.8
4	6.9	6.5	6.6	6.8	6.5	6.6	7.8	6.5	7.0	6.7	6.4	6.6
5	7.1	6.5	6.7	6.9	6.6	6.7	7.4	6.5	6.8	7.3	6.5	6.6
6	7.3	6.5	6.8	6.7	6.5	6.6	8.0	6.5	6.6	7.3	6.6	6.9
7	7.5	6.5	6.9	---	---	---	---	---	---	7.4	6.6	6.9
8	7.6	6.5	6.9	---	---	---	---	---	---	7.5	6.6	6.9
9	---	6.5	6.8	---	---	---	---	---	---	7.5	6.6	6.9
10	---	6.6	7.1	---	---	---	---	---	---	7.1	6.6	6.9
11	7.9	6.6	6.6	---	---	---	---	---	---	7.4	6.6	6.9
12	8.0	6.9	7.5	---	---	---	---	---	---	7.6	6.7	7.0
13	8.1	6.6	7.2	---	---	---	---	6.5	7.0	7.6	6.7	7.0
14	7.4	6.4	6.8	---	---	---	7.6	6.5	6.8	7.4	6.7	6.9
15	7.6	6.5	6.9	---	---	---	7.8	6.6	7.0	7.1	6.6	6.8
16	7.6	6.5	6.9	---	---	---	7.9	6.6	7.0	7.3	6.6	6.8
17	6.8	6.5	6.6	---	---	---	7.9	6.6	7.1	7.3	6.6	6.8
18	6.5	6.3	6.4	7.0	6.5	6.7	7.9	6.6	7.1	7.6	6.6	6.7
19	6.8	6.3	6.5	7.2	6.5	6.7	7.7	6.5	6.9	7.7	6.7	7.0
20	7.0	6.5	6.7	6.5	6.3	6.5	---	---	---	7.8	6.7	7.1
21	7.0	6.5	6.7	6.9	6.5	6.6	---	6.8	7.2	7.7	6.7	7.0
22	6.8	6.4	6.6	---	---	---	8.0	---	---	7.8	6.6	7.0
23	6.8	6.5	6.6	7.1	6.5	6.7	7.6	---	---	7.9	6.7	7.1
24	6.7	6.1	6.5	7.4	6.5	6.8	7.8	---	---	7.9	6.6	7.1
25	---	6.1	6.1	7.4	6.5	6.9	7.8	6.6	6.9	7.7	6.7	6.8
26	7.1	6.1	6.1	7.4	6.1	6.5	7.7	6.6	6.9	7.3	6.6	6.8
27	7.2	6.6	6.9	6.4	6.3	6.4	7.8	6.5	7.0	7.5	6.5	6.8
28	7.4	6.7	6.9	6.6	6.4	6.5	7.8	6.6	6.8	6.3	6.6	6.7
29	7.4	6.6	6.9	6.7	6.4	6.5	7.4	6.6	6.8	7.4	6.6	6.8
30	6.8	6.6	6.7	6.7	6.3	6.4	7.6	6.5	6.9	7.4	6.5	6.8
31	---	---	---	7.3	6.8	7.1	7.6	6.6	6.9	---	---	---
MONTH	8.1	6.1	6.7	7.4	6.1	6.7	8.0	6.5	6.9	7.9	6.4	6.9

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTWON, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	18.0	16.5	17.0	10.5	8.0	9.5						
2	20.0	18.0	18.5	12.0	8.5	10.5						
3	20.5	16.5	18.5	13.5	10.5	12.0						
4	21.0	17.5	18.0	13.0	9.0	11.0						
5	21.5	18.0	19.5	9.0	7.5	8.5						
6	20.5	17.5	19.0	9.0	6.5	7.5						
7	19.0	15.5	16.5	10.5	8.0	9.5						
8	18.0	14.0	16.0	11.0	9.0	10.0						
9	18.5	14.5	16.5	11.0	7.5	9.0						
10	17.0	16.5	16.5	10.0	8.5	---						
11	15.5	14.5	15.0	---	---	---						
12	19.5	16.0	17.5	---	---	---						
13	22.0	17.5	19.5	---	---	---						
14	20.0	18.5	---	---	---	---						
15	---	---	---	---	---	---						
16	---	---	---	---	---	---						
17	15.5	15.0	---	---	---	---						
18	16.5	14.0	15.5	---	---	---						
19	16.0	14.0	15.0	---	---	---						
20	14.0	13.0	13.5	---	---	---						
21	13.5	11.5	12.5	---	---	---						
22	12.5	10.0	11.5	---	---	---						
23	13.0	11.5	12.0	---	---	---						
24	14.0	13.0	13.5	---	---	---						
25	13.5	12.0	12.5	---	---	---						
26	13.0	11.5	12.0	---	---	---						
27	11.5	10.0	10.5	---	---	---						
28	12.5	9.0	10.5	---	---	---						
29	13.5	11.0	12.0	---	---	---						
30	11.0	8.5	9.5	---	---	---						
31	10.5	7.0	9.0	---	---	---						
MONTH	22.0	7.0	14.5	16.5	3.5	9.5						

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1				---	---	---	10.0	5.0	7.5	[illegible]	11.5	13.5
2				---	---	---	9.5	5.5	7.5	15.0	10.5	13.0
3				---	---	---	11.0	7.0	9.0	13.5	11.0	11.5
4				---	---	---	9.5	8.0	8.5	14.0	11.5	12.5
5				---	---	---	11.0	9.0	10.0	15.5	11.5	13.5
6				---	---	---	9.0	7.5	8.5	14.0	12.5	13.0
7				---	---	---	8.0	7.0	7.5	12.5	12.0	12.5
8				---	---	---	11.0	6.5	8.5	13.5	12.0	12.5
9				---	---	---	11.0	7.0	9.0	13.5	11.5	12.5
10				---	---	---	11.5	7.5	9.5	15.0	10.5	12.5
11				---	---	---	13.0	7.5	10.5	16.5	11.5	14.0
12				---	---	---	14.5	9.0	12.0	16.0	13.5	14.5
13				---	---	---	12.5	10.5	12.0	17.0	12.5	15.0
14				---	---	---	11.5	9.5	10.5	16.0	13.5	14.5
15				---	---	---	10.0	9.0	9.5	14.0	11.5	12.5
16				---	---	---	10.5	9.0	9.5	13.5	11.0	12.0
17				---	---	---	13.5	9.0	11.0	15.0	9.5	12.5
18				---	---	---	12.5	9.5	11.0	13.5	11.0	11.5
19				---	---	---	12.0	9.5	10.5	15.0	11.5	13.0
20				---	---	---	13.0	9.0	11.0	19.0	14.5	16.0
21				---	---	---	13.5	9.5	11.5	19.0	---	17.0
22				7.0	5.5	6.5	10.5	8.5	9.5	---	20.5	---
23				6.0	5.0	5.5	9.0	8.0	8.5	20.0	17.0	18.5
24				8.5	3.5	6.0	9.5	8.5	9.0	19.0	15.0	17.0
25				7.5	6.0	6.5	10.5	9.0	9.5	20.0	14.5	17.5
26				10.0	5.5	7.5	16.0	8.5	12.0	21.5	16.5	19.0
27				9.5	5.5	7.5	17.0	11.5	14.0	20.0	17.5	18.5
28				8.0	5.0	6.5	14.0	11.5	13.0	18.0	16.0	16.5
29				5.0	2.5	3.5	17.0	11.0	14.0	18.0	16.5	17.0
30				6.5	3.5	5.0	14.5	12.5	13.5	17.0	15.0	15.5
30				6.5	3.5	5.0	14.5	12 5	13.5	17.0	15.0	15.5
31				8.0	4.5	6.0	---	---	---	15.5	13.0	14.0
MONTH				10.0	2.5	6.0	17.0	5.0	10.5	21.5	9.5	14.5

01480870 EAST BRANCH BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.5	11.5	13.5	21.0	19.5	20.0	23.5	20.0	21.5	22.5	19.5	21.0
2	17.5	14.0	15.5	21.5	18.5	20.0	23.0	21.0	22.0	21.5	18.5	20.0
3	17.0	13.5	15.0	20.5	17.0	18.0	23.0	21.5	22.5	23 0	19.0	21.0
4	19.5	14.0	16.5	22.5	19.5	21.0	24.5	21.5	23.0	21.5	19.0	20.0
5	19.5	15.0	17.5	23.0	20.0	21.5	24.0	22.0	23.0	20.5	17.0	19.0
6	20.5	16.0	18.5	22.0	20.5	21.0	24.0	21.5	23.0	19.5	16.5	18.0
7	22.0	17.5	20.0	---	---	---	---	---	---	19.0	15.0	17.0
8	22.5	18.5	20.5	---	---	---	---	---	---	19.5	15.0	17.0
9	---	---	---	---	---	---	---	---	---	19.0	15.5	17 5
10	---	---	---	---	---	---	---	---	---	19.5	17.5	18.5
11	24.0	19.5	22.0	---	---	---	---	---	---	20.5	17.5	19.0
12	23.5	20.0	22.0	---	---	---	---	---	---	22.0	19 5	20.5
13	24.0	20.0	22.0	---	---	---	---	---	---	21.5	18.0	20.0
14	22.5	20.5	21.5	---	---	---	25.0	22.0	23.5	22.0	20 5	21 5
15	21.5	19.0	20.0	---	---	---	26.0	5.0	24.0	21.0	18.0	19.5
16	19.5	16.0	18.0	---	---	---	25.5	21.5	23.5	18.0	15.0	16.5
17	18.5	17.0	16.0	---	---	---	25.0	21.0	23 0	17.5	14.0	15.5
18	18.0	17.0	12.5	22.0	18.5	20.5	24.5	19.5	22.0	17.5	14.0	15.5
19	22.0	18.0	18.0	22.0	18.5	20.0	21.0	19.5	20.5	18.0	14.0	16 0
20	21.0	18.0	14.0	20.0	19.0	19.5	23.0	18.0	20.5	19.5	15.0	17.0
21	21.5	17.0	17.0	22.0	19.0	20.5	---	---	---	20.5	17.5	18.5
22	21.5	17.0	17.0	---	---	---	22.5	17.5	20.0	19.5	16.0	17.5
23	20.0	18.0	18.0	23.5	21.0	---	21.5	20.0	21.0	21.0	17.5	19.0
24	19.0	18.0	15.0	23.5	20.5	22.0	22.0	19.0	20.5	22.5	19.0	20.5
25	---	---	---	23.5	19.0	21.5	22.0	18.5	20.5	22.5	20.0	21.0
26	---	---	---	22.5	19.5	21.0	22.5	18.5	20.5	21.0	17.5	20.0
27	22.0	17.0	20.0	21.0	19.5	20.0	22.0	18.5	20.5	17.0	14.5	15.5
28	22.0	19.5	21.0	21.0	19.0	20.0	23.0	19.5	21.5	14.5	13.0	13.5
28	22.0	19.5	21.0	21.0	19.0	20.0	23.0	19.5	21.5	14.5	13.0	13.5
29	23.0	19.5	21.5	21.5	19.5	20.5	22.5	21.0	21.5	15.5	13.0	14.0
30	22.0	20.5	21.0	21.5	19.5	20.5	24.0	21.0	22.5	16.0	13.0	14.5
31	---	---	---	22.5	21.5	20.0	24.5	21.5	23.0	---	---	---
MONTH	24.0	11.5	18.0	23.5	17.0	20.5	26.0	17.5	22.0	23.0	13.0	18.0

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				12.4	10.6	---						
2				11.7	8.6	10.3						
3				8.8	5.7	7.1						
4				9.6	5.7	7.7						
5				11.1	8.3	9.5						
6				12.0	8.6	10.2						
7				10.9	7.3	8.8						
8				11.9	8.7	9.9						
9				12.2	8.6	9.9						
10				10.2	8.7	---						
11				---	---	---						
12				---	---	---						
13				---	---	---						
14				---	---	---						
15				---	---	---						
16				---	---	---						
17				---	---	---						
18				---	---	---						
19				---	---	---						
20				---	---	---						
21				---	---	---						
22				---	---	---						
23				---	---	---						
24				---	---	---						
25				---	---	---						
26				---	---	---						
27				---	---	---						
28				---	---	---						
29				---	---	---						
30				---	---	---						
31				---	---	---						
MONTH				12.4	5.7	9.2						

01480870 EAST BRANDYWINE CREEK BELOW DOWNINGTOWN, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIh MAY	MEAN
1				---	---	---	12.8	10.6	11.7	9.6	6.7	8.1
2				---	---	---	13.4	11.3	12.2	14.7	6.7	10.6
3				---	---	---	13.2	10.6	12.0	13.0	10.0	11.3
4				---	---	---	12.3	10.6	11.3	10.5	9.6	10.1
5				---	---	---	10.5	9.6	10.1	11.7	9.6	10.6
6				---	---	---	11.1	10.3	10.8	11.4	9.6	10.3
7				---	---	---	11.8	10.9	11.4	11.2	9.4	10.1
8				---	---	---	12.0	10.4	11.2	10.6	8.9	9.9
9				---	---	---	12.2	10.2	11.4	10.8	8.9	10.0
10				---	---	---	11.1	9.4	10.4	11.7	9.7	10.6
11				---	---	---	11.4	8.9	10.4	11.5	9.2	10.4
12				---	---	---	10.2	7.9	9.4	11.0	8.8	9.7
13				---	---	---	10.3	8.2	9.2	10.9	8.3	9.6
14				---	---	---	10.9	9.0	9.7	10.6	8.3	9.3
15				---	---	---	11.5	9.3	10.3	12.0	8.4	10.2
16				---	---	---	11.8	9.7	10.8	12.6	9.9	11.1
17				---	---	---	12.6	10.3	11.3	13.0	9.4	11.2
18				---	---	---	13.0	9.8	11.3	12.5	9.4	10.8
19				---	---	---	12.2	9.6	10.7	12.7	8.8	10.7
20				---	---	---	12.1	8.8	10.4	12.1	7.5	9.7
21				---	---	---	11.4	8.1	9.6	11.5	7.5	9.2
22				10.7	8.9	10.1	10.9	7.9	9.2	---	---	---
23				11.9	10.5	11.1	9.1	7.5	8.1	9.3	3.9	6.8
24				12.9	10 3	11.5	13.5	7.2	10.5	4.2	1.4	3.2
25				12.4	11.0	11.6	14.1	10.9	12.4	11.5	1.6	7.6
26				13.8	11.0	12.4	14.7	9.5	12.2	11.4	7.0	9.1
27				14.2	10.3	12.2	15.0	9.4	11.8	10.6	7.1	8.7
28				11.9	10.5	11.3	14.7	9.4	11.7	9.0	7.5	8.2
29				12.0	10.9	11.5	10.4	6.9	8.9	8.6	7.0	7.7
30				12.5	10.9	11.7	9.4	7.1	8.2	9.7	7.1	8.5
31				12.7	10.5	11.5	---	---	---	9.8	5.1	7.5
MONTH				14.2	8.9	11.5	15.0	6.9	10.6	14.7	1.4	9.4

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	8.5	5.8	6.9	8.4	7.7	8.0	10.1	8.0	8.8	8.1	4.9	6.2
2	8.3	3.3	5.1	9.1	8.5	8.8	10.2	7.8	8.5	9.2	5.9	7.2
3	---	---	---	9.6	8.0	8.8	9.7	7.6	8.3	9.7	6.3	7.6
4	10.6	8.5	9.3	9.0	8.0	8.4	10.3	7.3	8.5	8.1	6.5	7.4
5	10.3	8.4	9.3	8.9	7.5	8.3	9.7	7.1	8.1	10.2	7.7	8.0
6	10.5	7.9	9.2	8.4	7.5	8.1	10.7	7.2	8.4	10.7	7.6	8.9
7	10.7	7.2	8.8	---	---	---	---	---	---	10.2	7.2	8.4
8	10.5	7.0	8.5	---	---	---	---	---	---	9.5	5.8	7.3
9	---	---	---	---	---	---	---	---	---	9.7	6.3	7.3
10	---	---	---	---	---	---	---	---	---	9.3	6.7	7.6
11	10.3	6.4	7.9	---	---	---	---	---	---	10.0	6.7	8.1
12	11.5	6.5	8.5	---	---	---	---	---	---	10.5	6.8	8.3
13	11.4	6.8	8.6	---	---	---	---	---	---	11.1	7.2	8.6
14	9.9	5.8	7.7	---	---	---	11.0	6.5	8.0	9.8	7.0	8.0
15	9.3	6.0	7.2	---	---	---	11.6	7.0	8.4	10.0	7.1	8.3
16	9.7	5.8	7.3	---	---	---	11.9	6.9	8.4	10.4	6.3	8.5
17	7.4	5.8	6.6	---	---	---	12.0	2.3	8.6	10.6	7.4	8.8
18	8.5	6.3	7.6	9.1	7.7	8.3	12.5	7.1	8.9	11.1	8.0	9.2
19	8.1	5.8	7.4	9.4	7.3	8.1	11.3	7.6	9.1	11.4	7.9	9.3
20	8.5	7.1	7.7	8.1	6.7	7.2	12.0	7.7	9.3	11.1	7.2	8.8
21	8.5	6.6	7.5	7.7	5.5	6.5	---	---	---	10.7	7.2	8.5
22	8.3	6.6	7.4	---	---	---	10.9	6.1	8.1	10.1	7.2	8.3
23	8.3	6.7	7.3	8.7	.8	3.3	9.5	5.7	7.0	10.4	6.8	8.2
24	7.8	6.2	7.0	1.5	.9	1.1	9.4	5.5	6.9	9.9	6.2	7.7
25	---	---	---	3.0	1.6	2.4	9.3	5.1	6.6	9.9	6.3	7.6
26	8.9	7.2	8.1	6.3	3.4	4.9	8.8	4.7	6.1	10.2	6.7	8.0
27	9.2	6.9	8.1	6.8	4.8	6.4	8.8	4.3	6.0	11.6	7.7	9.3
28	9.7	7.1	8.1	7.6	7.1	7.4	7.7	2.6	4.7	11.9	9.0	10.7
29	9.7	7.0	8.2	8.4	7.4	7.8	4.3	2.5	3.3	12.4	9.5	11.5
30	8.9	7.1	7.9	8.7	7.3	8.1	6.4	3.6	4.8	12.1	9.8	10.6
31	---	---	---	9.8	8.1	8.7	7.3	4.4	5.6	---	---	---
ONTH	11.5	3.3	7.8	9.8	.8	6.9	12.5	2.3	7.4	12.4	4.9	8.4

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA

LOCATION.--Lat 39°52'11", long 75°35'37", Delaware County, Hydrologic Unit 02040205, on left bank 27 ft (8 m) upstream from Penn Central Railroad bridge at Chadds Ford, 150 ft (46 m) upstream from Harvey Run and 1,200 ft (370 m) downstream from highway bridge on U.S. Highway 1.

DRAINAGE AREA.--287 mi² (743 km²), including that Harvey Run.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1911 to December 1953, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1302.

REVISED RECORDS.--WSP 756: Drainage area. WSP 1202: 1917-18 (M), 1919-20, 1922-31 (M), 1932-33. 1934 (M), 1936, 1938 (P), 1939 (M), 1942, 1944-46 (M).

GAGE.--Water-stage recorder. Datum of gage is 150.45 ft (45.857 m) National Geodetic Vertical Datum of 1929. Prior to May 21, 1927, nonrecording gage at same site and datum.

REMARKS.--Records good. Flow regulated since November 1973 by Marsh Creek Reservoir (station 01480684) about 17 mi (27 km) upstream.

AVERAGE DISCHARGE.--64 years (water years 1911-53, 1962-84), 402 ft³/s (11.38 m³/s), 19.03 in/yr (483 mm/yr), adjusted for storage since November 1973.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft³/s (674 m³/s) June 22, 1972, gage height, 16.56 ft (5.047 m) from rating curve extended above 9,000 ft³/s (255 m³/s) on basis of area-velocity study; minimum, 4.9 ft³/s (0.14 m³/s) Oct. 2, 1941, gage height, 0.28 ft (0.085); minimum daily, 42 ft³/s (1.19 m³/s) Sept. 12, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,450 ft³/s (239 m³/s) Dec. 13, gage height, 11.24 ft (3.426 m); minimum daily, 108 ft³/s (3.06 m³/s) Oct. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	128	385	615	421	729	1090	756	1240	2090	449	231
2	127	128	318	584	343	693	1000	682	884	2480	435	224
3	118	129	341	640	427	661	1000	681	821	1110	432	238
4	114	138	1090	819	2030	630	945	2480	773	653	426	355
5	113	129	941	820	1030	779	3340	1390	705	587	412	279
6	115	127	587	777	675	1020	2200	1000	668	925	408	245
7	111	126	807	546	520	767	1470	948	586	3220	378	231
8	110	123	494	510	439	681	1270	1110	557	1750	444	223
9	109	122	440	434	429	640	1200	1500	537	1050	364	216
10	108	145	417	456	514	610	1200	974	509	787	370	230
11	108	370	376	672	754	590	1070	874	500	1800	403	262
12	177	327	1420	430	890	570	867	887	481	919	440	227
13	323	185	6250	400	695	748	837	848	442	621	461	214
14	213	140	3310	380	818	1530	863	784	661	550	368	229
15	139	322	1550	360	4400	1170	912	743	502	511	346	275
16	116	1740	1290	340	2850	1110	1150	713	445	504	324	256
17	113	493	945	459	1320	1070	1060	645	474	913	308	217
18	114	303	825	455	1110	884	976	627	1370	576	299	206
19	224	218	743	421	966	823	925	660	1560	564	381	201
20	192	188	664	335	858	812	839	636	723	476	375	200
21	128	945	587	310	778	1150	787	602	600	1110	300	191
22	121	497	2310	290	724	1270	740	574	540	718	285	186
23	253	267	1450	280	714	929	978	626	453	589	307	185
24	1320	240	895	400	2250	758	944	756	682	516	318	182
25	475	1260	595	555	1130	765	857	581	1280	472	278	185
26	266	971	550	789	923	779	766	548	594	448	265	184
27	173	440	540	898	812	706	715	621	497	1660	256	175
28	143	399	1330	892	951	1110	684	617	460	812	252	242
29	135	1200	1930	536	999	2230	1060	2080	444	604	254	277
30	132	611	804	467	---	1560	800	3340	442	548	256	216
31	130	---	683	460	---	1380	---	1550	---	482	247	---
TOTAL	6140	12411	34867	16330	30770	29154	32545	30833	20450	30045	10841	6782
MEAN	198	414	1125	527	1061	940	1085	995	682	969	350	226
MAX	1320	1740	6250	898	4400	2230	3340	3340	1580	3220	461	355
MIN	108	122	318	280	343	570	684	548	442	448	247	175
MEAN‡	204	446	1138	497	1090	942	1084	1008	668	967	350	226
CFSM‡	.71	1.55	3.97	1.73	3.80	3.28	3.78	3.51	2.33	3.37	1.22	.79
IN‡	.80	1.76	4.49	1.96	4.30	3.71	4.28	3.98	2.63	3.81	1.38	.89

CAL YR 1983 TOTAL 208928 MEAN 572 MAX 6250 MIN 101 MEAN‡ 576 CFSM‡ 2.01 IN‡ 27.27
WTR YR 1984 TOTAL 261168 MEAN 714 MAX 6250 MIN 108 MEAN‡ 718 CFSM‡ 2.50 IN‡ 33.98

‡ Adjusted for change in contents in Marsh Creek Reservoir.

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to current year.
pH: October 1965 to September 1966, December 1971 to current year.
WATER TEMPERATURES: October 1964 to current year.
DISSOLVED OXYGEN: October 1971 to current year.

SUSPENDED-SEDIMENT DISCHARGE: July 1963 to September 1978.

INSTRUMENTATION.--Water-quality monitor since August 1971.

REMARKS.--Not operated Dec. 1 to Mar. 15. Other interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 445 micromhos Oct. 25, 1971; minimum, 42 micromhos Nov. 26, 1979.
pH: Maximum, 9.8 Apr. 9, 1975; minimum, 6.1 Feb. 22, 1976.
WATER TEMPERATURES: Maximum, 31.0°C July 18, 19, 1977; minimum daily, freezing point on many days during winter months.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L Dec. 5, 1976; minimum, 3.0 mg/L June 21, 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML)
OCT							
10...	1430	107	289	7.1	15.5	10.6	190
17...	1500	111	285	7.7	14.5	11.1	520
24...	1430	1476	186	6.9	13.5	9.2	13000
31...	1400	129	286	7.3	9.0	11.6	280
NOV							
07...	1430	120	279	7.3	8.0	12.8	47
14...	1400	140	251	7.3	5.5	12.1	660
21...	1400	1200	195	7.1	10.0	10.6	10000
DEC							
01...	1430	384	226	7.4	4.5	11.9	--
MAR							
08...	1100	675	235	7.4	3.0	13.1	--
16...	1300	1055	205	7.4	6.0	12.2	--
20...	1230	783	220	7.6	6.0	13.3	520
27...	1130	705	223	7.4	8.0	12.7	280
APR							
02...	1400	979	209	7.3	9.0	13.1	521
10...	1400	1223	201	7.3	10.5	11.9	140
17...	1000	1085	205	7.2	9.5	11.3	3900
25...	1230	852	212	7.6	10.0	12.4	1400
MAY							
02...	1400	685	204	8.1	13.5	11.8	130
09...	1330	1515	170	7.0	13.0	10.6	10000
15...	1400	749	203	7.5	13.0	10.9	1400
21...	1230	601	210	7.4	18.0	9.7	820
31...	1100	1470	189	6.9	14.0	9.6	10000
JUN							
05...	1100	715	210	7.2	17.0	9.3	1400
15...	1400	507	220	7.3	21.0	8.8	1000
19...	1130	2012	152	7.1	8.0	8.1	76000
27...	1130	507	223	7.3	19.0	9.2	1700
JUL							
05...	1130	576	211	7.3	23.0	8.2	2200
10...	1130	863	197	7.1	17.0	9.3	30000
AUG							
02...	1300	438	228	7.0	22.0	8.8	1250
07...	1200	380	225	7.4	23.0	8.4	780
14...	1130	360	223	7.2	23.0	8.1	1900
23...	1430	344	239	7.3	21.0	8.1	
30...	1400	262	247	7.6	23.0	8.0	780
SEP							
07...	1300	230	246	7.4	17.5	8.5	108
10...	1400	214	251	7.4	19.0	9.0	880
19...	1400	199	248	7.6	17.0	9.6	460
26...	1430	170	257	7.3	21.0	8.3	760

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	282	276	279	286	282	284						
2	282	276	279	282	280	281						
3	278	266	272	282	279	280						
4	292	273	285	280	275	277						
5	330	279	287	279	274	276						
6	281	277	279	281	276	279						
7	284	280	283	284	276	280						
8	295	285	---	285	276	282						
9	---	---	---	278	273	275						
10	---	---	---	280	264	274						
11	---	---	---	265	228	255						
12	---	---	---	238	227	232						
13	256	216	---	242	228	236						
14	250	215	236	258	241	255						
15	262	250	258	258	217	247						
16	279	256	265	---	---	---						
17	288	278	284	---	---	---						
18	289	278	283	---	---	---						
19	280	264	274	---	---	---						
20	263	235	255	---	---	---						
21	261	234	245	---	---	---						
22	270	261	265	---	---	---						
23	273	249	267	---	---	---						
24	246	185	200	---	---	---						
25	232	197	218	---	---	---						
26	249	233	242	---	---	---						
27	266	250	258	---	---	---						
28	281	267	275	---	---	---						
29	286	277	282	---	---	---						
30	300	283	288	---	---	---						
31	299	281	288	---	---	---						
MONTH	330	185	224	286	217	142						

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	208	201	204	219	214	216
2				---	---	---	211	204	209	221	202	212
3				---	---	---	208	204	206	210	203	207
4				---	---	---	215	205	212	202	138	158
5				---	---	---	---	---	---	185	139	166
6				---	---	---	---	---	---	193	185	190
7				---	---	---	---	---	---	196	193	194
8				---	---	---	---	---	---	197	172	192
9				---	---	---	---	---	---	182	168	176
10				---	---	---	---	---	---	195	182	191
11				---	---	---	---	---	---	200	194	198
12				---	---	---	---	---	---	202	198	200
13				---	---	---	---	---	---	201	197	199
14				---	---	---	---	---	---	203	200	202
15				---	---	---	---	---	---	204	202	202
16				---	---	---	---	---	---	205	201	203
17				219	201	209	---	---	---	211	204	207
18				215	212	214	---	---	---	210	206	208
19				218	215	217	213	207	210	211	206	208
20				222	211	219	214	210	213	210	204	207
21				213	203	207	218	213	216	210	206	208
22				204	186	197	221	215	218	213	209	211
23				208	202	206	215	202	208	217	207	213
24				219	206	215	211	205	208	210	198	203
25				223	217	220	213	210	212	214	203	210
26				220	214	218	221	214	217	215	211	213
27				223	217	220	223	218	220	223	205	211
28				223	190	215	222	216	219	210	206	209
29				222	167	188	219	188	199	207	128	170
30				214	200	204	214	199	209	172	127	149
31				204	191	197	---	---	---	---	---	---
MONTH				223	167	209	223	188	127	223	139	197

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	192	186	189	232	96	182	233	223	229	249	243	246
2	208	192	203	155	105	129	---	---	---	252	243	246
3	208	204	206	188	156	174	230	224	227	248	230	242
4	207	203	205	210	188	203	227	220	225	230	215	222
5	211	206	209	213	208	211	227	223	225	228	224	226
6	212	208	210	207	191	200	224	218	220	238	228	234
7	217	209	214	202	87	129	224	220	222	247	238	244
8	256	216	218	173	118	149	229	211	221	252	245	248
9	221	216	218	190	173	183	228	217	224	254	246	249
10	221	217	220	196	190	192	231	221	228	247	243	247
11	221	216	219	209	127	155	232	227	230	246	241	244
12	223	218	220	202	158	185	232	213	221	251	240	244
13	223	216	221	217	202	212	223	202	213	253	247	250
14	219	206	213	225	217	222	---	---	---	258	243	251
15	220	212	218	225	223	224	---	---	---	247	235	241
16	226	219	222	225	176	214	234	230	232	247	234	242
17	227	215	222	209	171	189	234	230	233	246	234	240
18	213	157	180	223	210	218	237	233	235	255	238	244
19	171	147	164	222	215	218	240	224	232	247	245	248
20	213	187	202	227	221	225	227	213	219	255	249	252
21	219	212	215	220	149	172	232	222	228	258	254	256
22	221	217	219	215	185	205	237	231	235	262	251	256
23	229	218	224	220	215	218	243	236	239	258	246	251
24	230	168	219	226	220	224	245	236	240	257	245	251
25	195	162	175	228	225	226	240	236	238	260	249	254
26	220	196	209	230	225	228	241	236	239	260	256	259
27	220	218	221	219	137	159	245	239	242	264	257	261
28	228	222	226	204	175	194	247	239	244	261	249	256
29	229	222	226	215	205	211	249	244	247	250	234	242
30	230	227	229	217	213	215	247	243	245	244	234	239
31	---	---	---	227	217	224	247	241	244	---	---	---
MONTH	256	147	212	232	87	196	249	202	220	264	215	246

PH (UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	7.6	7.4	7.5	7.5	7.4	7.4						
2	7.8	7.4	7.5	7.5	7.4	7.4						
3	7.9	7.4	7.6	7.5	7.4	7.4						
4	7.9	7.4	7.6	7.5	7.3	7.4						
5	8.0	7.3	7.6	7.5	7.3	7.4						
6	8.0	7.3	7.6	7.6	7.4	7.5						
7	8.1	7.4	7.7	7.6	7.3	7.5						
8	8.2	7.4	---	7.7	7.4	7.5						
9	---	---	---	7.7	7.4	7.5						
10	---	---	---	7.5	7.4	7.4						
11	---	---	---	7.4	7.3	7.3						
12	---	---	---	7.4	7.2	7.3						
13	7.3	7.3	---	7.4	7.3	7.4						
14	7.4	7.2	7.3	7.4	7.3	7.4						
15	7.6	7.3	7.4	7.4	7.2	7.3						
16	7.7	7.3	7.5	---	---	---						
17	7.6	7.4	7.5	---	---	---						
18	7.8	7.4	7.5	---	---	---						
19	7.5	7.4	7.5	---	---	---						
20	7.5	7.4	7.4	---	---	---						
21	7.7	7.4	7.5	---	---	---						
22	7.8	7.4	7.5	---	---	---						
23	7.6	7.4	7.5	---	---	---						
24	7.4	6.9	7.1	---	---	---						
25	7.2	7.1	7.2	---	---	---						
26	7.3	7.2	7.3	---	---	---						
27	7.4	7.3	7.4	---	---	---						
28	7.5	7.4	7.4	---	---	---						
29	7.5	7.4	7.4	---	---	---						
30	7.5	7.4	7.4	---	---	---						
31	7.5	7.3	7.4	---	---	---						
MONTH	8.2	6.9	6.6	7.7	7.2	4.6						

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

PH (UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	7.6	7.3	7.4	8.5	7.3	7.8
2				---	---	---	7.8	7.3	7.5	8.1	7.4	8.1
3				---	---	---	8.1	7.3	7.6	8.5	7.4	7.8
4				---	---	---	7.6	7.3	7.4	7.6	7.1	7.2
5				---	---	---	---	---	---	7.3	7.1	7.2
6				---	---	---	---	---	---	7.5	7.2	7.3
7				---	---	---	---	---	---	7.5	7.3	7.4
8				---	---	---	---	---	---	7.4	7.2	7.3
9				---	---	---	---	---	---	7.3	7.2	7.3
10				---	---	---	---	---	---	7.6	7.3	7.4
11				---	---	---	---	---	---	7.7	7.3	7.5
12				---	---	---	---	---	---	7.6	7.3	7.4
13				---	---	---	---	---	---	7.9	7.3	7.5
14				---	---	---	---	---	---	7.9	7.3	7.6
15				---	---	---	---	---	---	8.0	7.3	7.6
16				---	---	---	---	---	---	---	---	---
17				7.5	7.3	7.4	---	---	---	8.5	7.4	7.9
18				7.8	7.2	7.5	---	---	---	8.1	7.4	7.6
19				8.0	7.2	7.5	8.0	7.3	7.6	8.3	7.3	7.7
20				8.3	7.2	7.7	8.2	7.3	7.7	8.5	7.3	7.9
21				7.7	7.3	7.4	8.6	7.3	7.9	8.3	7.3	7.8
22				7.4	7.3	7.4	8.5	7.4	8.0	8.3	7.3	7.8
23				7.8	7.3	7.5	8.1	7.3	7.5	7.9	7.3	7.4
24				8.0	7.4	7.6	7.6	7.2	7.4	7.5	7.2	7.3
25				7.6	7.4	7.5	8.4	7.3	7.8	7.8	7.3	7.5
26				8.2	7.3	7.7	8.8	7.4	8.1	7.8	7.3	7.5
27				8.2	7.4	7.8	9.0	7.4	8.2	7.6	7.2	7.4
28				7.6	7.3	7.4	8.9	7.5	8.3	7.4	7.3	7.3
29				7.3	7.3	7.3	8.5	7.2	7.5	7.3	6.9	7.1
30				7.4	7.3	7.3	7.8	7.3	7.5	7.1	6.9	7.0
31				7.5	7.3	7.4	---	---	---	7.3	6.9	7.2
MONTH				8.3	7.2	7.5	9.0	7.2	6.5	8.5	6.9	7.5

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.4	7.3	7.3	7.5	6.8	7.2	7.6	7.3	7.4	7.8	7.4	7.6
2	7.5	7.3	7.4	7.2	6.8	6.9	7.7	7.0	7.6	7.8	7.5	7.6
3	7.5	7.3	7.4	7.2	7.1	7.2	7.7	7.3	7.5	7.7	7.4	7.6
4	7.6	7.3	7.4	7.4	7.2	7.3	7.9	7.4	7.6	7.5	7.3	7.3
5	7.7	7.2	7.5	7.5	7.3	7.4	8.0	7.4	7.7	7.5	7.3	7.4
6	7.9	7.3	7.5	7.4	7.3	7.3	8.3	7.4	7.8	7.6	7.4	7.5
7	8.0	7.3	7.6	7.4	6.7	7.0	8.1	7.4	7.9	7.6	7.4	7.6
8	7.9	7.3	7.6	7.2	6.8	7.1	8.4	7.4	7.9	7.7	7.4	7.6
9	7.9	7.3	7.5	7.3	7.2	7.3	8.5	7.4	7.9	7.7	7.5	7.6
10	7.9	7.2	7.5	7.3	7.3	7.3	8.3	7.4	7.6	7.7	7.4	7.6
11	7.8	7.2	7.5	7.3	7.0	7.1	8.1	7.4	7.7	7.7	7.4	7.5
12	7.8	7.2	7.5	7.3	7.1	7.2	7.8	7.3	7.6	7.7	7.4	7.6
13	7.7	7.3	7.5	7.4	7.2	7.3	7.6	7.3	7.4	7.8	7.4	7.6
14	7.5	7.1	7.2	7.4	7.3	7.3	---	---	---	7.7	7.4	7.6
15	7.6	7.2	7.3	7.5	7.3	7.4	---	---	---	7.5	7.2	7.4
16	7.6	7.4	7.5	7.6	7.2	7.4	8.0	7.4	7.7	7.6	7.4	7.5
17	7.5	7.4	7.4	7.3	7.1	7.2	8.1	7.4	7.7	7.6	7.4	7.5
18	7.4	7.2	7.3	7.4	7.3	7.3	8.0	7.4	7.7	7.7	7.5	7.6
19	7.3	7.1	7.0	7.5	7.3	7.4	7.9	7.4	7.5	7.7	7.5	7.6
20	7.4	7.2	7.3	7.6	7.3	7.5	7.6	7.3	7.5	7.8	7.5	7.6
21	7.5	7.3	7.4	7.6	7.1	7.4	7.7	7.4	7.6	7.8	7.5	7.6
22	7.5	7.3	7.4	7.3	7.1	7.2	7.9	7.4	7.6	7.8	7.5	7.7
23	7.5	7.4	7.4	7.4	7.3	7.3	7.8	7.4	7.6	7.9	7.5	7.7
24	7.5	7.2	7.4	7.5	7.3	7.4	7.8	7.4	7.6	7.8	7.4	7.6
25	7.3	7.2	7.2	7.6	7.3	7.4	7.8	7.4	7.6	7.7	7.3	7.5
26	7.5	7.3	7.4	7.7	7.4	7.5	7.8	7.4	7.6	7.5	7.3	7.4
27	7.4	7.3	7.5	7.8	7.0	7.4	7.8	7.4	7.6	7.7	7.4	7.5
28	7.5	7.4	7.5	7.3	7.0	7.1	7.9	7.5	7.7	7.6	7.4	7.5
29	7.7	7.4	7.5	7.4	7.3	7.3	7.7	7.5	7.6	7.7	7.4	7.5
30	7.6	7.4	7.5	7.4	7.3	7.3	7.5	7.4	7.6	7.7	7.5	7.6
31	---	---	---	7.5	7.3	7.4	7.8	7.4	7.6	---	---	---
MONTH	8.0	7.1	7.4	7.8	6.7	7.3	8.5	7.0	7.6	7.9	7.2	7.5

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	16.0	15.0	15.5	8.5	7.0	8.0						
2	18.5	16.0	17.0	9.5	7.0	8.5						
3	19.5	16.5	18.0	11.0	8.5	10.0						
4	20.0	17.5	18.5	11.0	9.0	10.0						
5	20.5	18.0	19.5	9.0	7.5	8.0						
6	20.0	18.0	19.0	7.5	6.0	7.0						
7	19.0	16.5	17.5	8.0	6.0	7.5						
8	17.5	15.0	---	9.5	7.5	8.5						
9	---	---	---	9.5	7.5	8.5						
10	---	---	---	9.5	8.0	8.5						
11	---	---	---	10.5	9.0	10.0						
12	---	---	---	10.0	7.0	8.5						
13	---	---	---	6.5	5.5	6.0						
14	19.5	17.0	18.0	5.5	5.5	5.5						
15	16.5	15.0	16.0	8.0	5.5	6.0						
16	15.5	13.0	14.5	---	---	---						
17	14.5	13.0	14.0	---	---	---						
18	15.0	13.5	14.5	---	---	---						
19	15.0	14.5	14.5	---	---	---						
20	14.0	13.0	14.0	---	---	---						
21	13.0	12.0	12.5	---	---	---						
22	12.5	10.5	11.5	---	---	---						
23	12.5	11.0	11.5	---	---	---						
24	13.5	12.5	13.0	---	---	---						
25	13.5	12.0	13.0	---	---	---						
26	12.5	11.5	12.0	---	---	---						
27	11.5	10.0	11.0	---	---	---						
28	11.0	9.0	10.0	---	---	---						
29	12.0	10.5	11.0	---	---	---						
30	10.5	9.0	10.0	---	---	---						
31	9.5	7.5	8.5	---	---	---						
MONTH	20.5	7.5	14.5	11.0	5.5	8.0						

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	9.5	6.5	8.0	15.5	13.0	14.5
2				---	---	---	10.0	7.5	9.0	14.5	13.0	14.0
3				---	---	---	11.5	9.0	10.0	14.0	12.0	12.5
4				---	---	---	11.0	9.5	10.0	14.5	12.0	13.0
5				---	---	---	---	---	---	15.0	12.5	14.0
6				---	---	---	---	---	---	15.0	13.0	14.0
7				---	---	---	---	---	---	13.0	12.5	12.5
8				---	---	---	---	---	---	14.0	12.5	13.0
9				---	---	---	---	---	---	13.5	12.5	13.0
10				---	---	---	---	---	---	14.0	11.5	12.5
11				---	---	---	---	---	---	15.5	12.5	14.5
12				---	---	---	---	---	---	16.0	14.5	15.0
13				---	---	---	---	---	---	16.5	14.0	15.5
14				---	---	---	---	---	---	16.0	14.5	15.0
15				---	---	---	---	---	---	---	---	---
16				---	---	---	---	---	---	13.0	11.5	12.0
17				6.5	5.5	6.0	---	---	---	14.0	10.5	12.5
18				6.0	5.0	5.5	---	---	---	13.5	11.5	12.0
19				7.5	5.5	6.5	12.5	11.0	12.0	14.5	11.5	12.5
20				7.5	5.5	6.5	13.0	11.0	12.0	18.5	14.5	16.5
21				7.5	6.5	6.5	13.0	11.5	12.5	19.0	17.0	18.0
22				6.5	5.5	6.0	12.0	10.0	11.0	21.0	17.0	19.0
23				6.5	5.5	6.0	10.5	9.0	9.5	21.0	18.5	20.0
24				7.5	4.5	6.0	10.0	9.0	9.5	19.0	16.5	18.0
25				7.5	7.0	7.5	10.5	9.5	10.0	19.5	16.5	18.0
26				9.5	6.5	8.0	14.5	9.5	12.0	21.5	18.0	19.5
27				9.5	5.5	7.5	16.5	13.0	15.0	21.0	19.0	19.5
28				9.0	6.0	8.0	15.5	14.0	14.5	19.5	17.0	17.5
29				6.0	3.5	4.0	16.5	12.5	14.5	18.0	17.0	17.5
30				6.5	3.5	5.0	16.0	14.0	14.5	17.5	15.0	16.0
31				8.0	6.0	7.0	---	---	---	15.5	14.0	14.5
MONTH				9.5	3.5	6.0	16.5	6.5	11.5	21.5	10.5	15.0

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	15.0	12.5	14.0	21.5	20.0	21.0	23.0	20.5	22.0	23.5	21.5	22.5
2	16.5	14.5	15.0	22.5	20.5	21.0	23.5	21.5	22.5	22.0	20.5	21.0
3	16.5	14.5	15.5	21.5	19.5	20.5	23.0	22.0	22.5	23.0	20.5	21.5
4	18.5	15.0	16.5	23.5	20.5	22.0	24.5	21.5	23.0	22.0	20.5	21.0
5	19.5	16.5	18.0	25.5	22.5	24.0	24.0	22.5	23.5	20.0	19.0	19.5
6	20.5	17.5	19.0	24.5	22.5	23.0	24.0	21.5	23.0	19.0	17.5	18.5
7	24.0	19.0	20.5	23.5	22.0	22.5	23.5	22.5	23.5	18.0	16.5	17.5
8	23.0	20.0	21.5	22.0	20.0	21.0	25.5	22.5	24.0	18.0	16.0	17.5
9	24.0	20.5	22.5	20.0	17.5	18.5	25.5	23.5	24.5	18.5	16.5	18.0
10	24.5	21.5	23.0	18.5	17.0	17.5	25.0	23.0	23.5	19.0	18.0	18.5
11	24.5	22.0	23.5	23.0	18.0	20.0	23.5	22.5	23.0	20.0	18.0	19.0
12	24.0	21.5	23.0	23.5	21.0	22.0	24.0	22.5	23.5	21.0	19.5	20.0
13	24.5	21.5	23.0	23.5	21.0	22.5	24.5	23.0	23.5	21.0	19.0	20.0
14	23.5	21.5	22.5	24.0	21.0	22.5	---	---	---	22.0	20.5	21.5
15	22.5	20.5	21.0	24.5	21.5	23.5	---	---	---	21.5	19.0	20.5
16	21.0	18.5	20.0	25.0	23.0	24.0	25.5	23.5	24.5	19.0	17.0	18.0
17	21.0	19.0	19.5	23.0	22.0	22.5	25.0	23.5	24.5	17.0	15.5	16.5
18	20.5	19.5	20.0	23.0	21.0	22.0	24.5	23.0	23.5	16.5	15.0	16.0
19	22.5	19.0	21.0	22.5	20.0	21.5	23.5	21.0	22.0	16.0	15.0	16.0
20	20.5	19.5	20.0	22.5	20.0	21.5	22.5	20.0	21.5	18.5	16.0	17.0
21	21.0	16.0	19.5	21.5	20.0	20.5	22.0	19.5	21.0	19.5	17.5	18.5
22	21.0	18.5	20.0	21.5	20.0	21.0	22.0	19.5	21.0	19.0	17.0	18.5
23	20.5	19.0	19.5	23.5	21.0	22.0	22.0	21.0	21.5	20.0	17.5	19.0
24	19.0	18.5	18.5	23.5	21.5	22.5	22.0	20.5	21.5	22.0	19.5	20.5
25	21.0	18.0	19.5	24.0	21.0	22.5	22.0	20.0	21.0	22.0	21.0	21.5
26	20.5	18.5	19.5	23.0	20.5	22.0	22.5	20.5	21.5	21.5	20.5	20.5
27	21.5	18.0	20.0	22.0	20.5	20.5	22.0	20.0	21.0	19.0	16.0	17.0
28	22.5	20.5	21.5	20.5	19.5	20.0	22.5	21.0	22.0	15.5	13.0	14.0
29	23.0	20.5	22.0	20.5	18.5	19.5	22.5	22.0	22.5	14.5	13.0	14.0
30	23.0	21.5	22.0	20.5	17.0	20.0	22.5	22.0	23.0	15.5	13.5	14.5
31	---	---	---	22.5	17.5	21.0	24.5	23.0	23.5	---	---	---
MONTH	24.5	10.5	19.5	25.5	17.0	21.5	25.5	19.5	23.0	23.5	13.0	18.5

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO OCTOBER 1984

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	9.2	8.2	8.7	11.7	10.9	11.2						
2	9.2	7.7	8.3	11.7	10.7	11.1						
3	10.4	7.3	8.6	11.1	10.0	10.5						
4	10.4	8.2	9.1	10.6	9.7	10.0						
5	10.4	7.9	8.9	11.2	10.0	10.7						
6	10.4	7.9	8.9	12.0	10.8	11.3						
7	10.9	8.2	9.3	12.8	11.1	11.6						
8	11.4	8.7	---	12.5	11.3	11.7						
9	---	---	---	12.5	11.0	11.5						
10	---	---	---	11.7	10.5	11.1						
11	---	---	---	10.5	9.9	10.1						
12	---	---	---	11.3	10.0	10.7						
13	---	---	---	12.3	11.3	11.8						
14	---	---	---	12.4	11.8	12.0						
15	---	---	---	11.8	10.6	11.5						
16	---	---	---	---	---	---						
17	---	---	---	---	---	---						
18	11.1	9.4	10.0	---	---	---						
19	10.0	9.3	9.6	---	---	---						
20	10.7	9.6	10.1	---	---	---						
21	11.6	10.1	10.7	---	---	---						
22	12.2	10.4	11.1	---	---	---						
23	11.3	10.3	10.8	---	---	---						
24	10.3	8.1	9.4	---	---	---						
25	9.6	9.3	9.4	---	---	---						
26	9.9	9.6	9.7	---	---	---						
27	10.5	9.7	10.1	---	---	---						
28	10.6	10.0	10.2	---	---	---						
29	10.3	9.2	9.8	---	---	---						
30	9.6	8.9	9.2	---	---	---						
31	11.6	8.9	9.9	---	---	---						
MONTH	12.2	8.1	9.2	12.8	9.7	11.2						

01481000 BRANDYWINE CREEK AT CHADDS FORD, PA--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

		FEBRUARY			MARCH			APRIL			MAY	
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	13.1	11.7	12.4	12.4	9.6	10.8
2				---	---	---	13.1	11.6	12.4	12.3	9.3	10.8
3				---	---	---	13.0	11.2	12.0	11.1	8.9	10.0
4				---	---	---	12.0	10.8	11.4	10.1	7.5	8.8
5				---	---	---	---	---	---	9.2	7.6	8.5
6				---	---	---	---	---	---	9.6	8.5	9.1
7				---	---	---	---	---	---	9.5	8.6	9.0
8				---	---	---	---	---	---	9.2	8.5	8.9
9				---	---	---	---	---	---	10.6	8.4	9.5
10				---	---	---	---	---	---	11.6	10.4	11.0
11				---	---	---	---	---	---	11.5	10.3	10.9
12				---	---	---	---	---	---	10.8	9.4	10.0
13				---	---	---	---	---	---	10.7	8.1	9.7
14				---	---	---	---	---	---	8.4	6.3	7.6
15				---	---	---	---	---	---	11.6	5.8	8.4
16				---	---	---	---	---	---	11.4	9.1	10.3
17				12.9	11.5	12.2	---	---	---	10.6	9.0	9.8
18				13.6	12.1	12.7	---	---	---	10.9	8.7	10.0
19				13.8	12.1	12.9	12.4	10.4	11.3	11.0	9.1	9.9
20				13.8	11.8	12.8	12.8	10.6	11.6	9.7	7.6	8.7
21				11.8	11.2	11.5	13.3	10.3	11.7	10.9	6.7	8.7
22				12.2	11.4	11.9	13.8	10.6	12.1	10.8	8.3	9.5
23				13.2	11.8	12.5	12.2	10.9	11.5	8.6	6.1	7.4
24				14.0	12.4	13.0	12.0	10.7	11.3	8.0	5.8	7.3
25				12.4	11.3	11.9	12.9	10.3	11.6	8.4	6.3	7.2
26				13.4	11.6	12.4	13.4	10.6	11.9	7.6	6.1	6.8
27				13.4	11.0	12.1	13.2	9.4	11.2	---	---	---
28				12.0	11.0	11.6	13.1	9.2	11.1	6.7	5.8	6.2
29				12.7	11.9	12.3	10.7	9.8	10.1	6.4	5.4	5.9
30				12.7	11.7	12.3	11.3	9.2	10.2	5.8	5.0	5.4
31				12.9	11.9	12.4	---	---	---	9.6	5.7	8.1
MONTH				14.0	11.0	12.0	13.8	9.2	10.5	12.4	5.4	8.7

		JUNE			JULY			AUGUST			SEPTEMBER	
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.1	8.9	9.8	8.8	6.8	8.2	8.4	7.5	7.9	6.8	6.3	6.5
2	9.8	6.6	8.6	8.7	6.4	7.9	---	---	---	7.1	6.4	6.8
3	7.0	1.8	4.7	9.1	7.9	8.9	9.0	7.9	8.4	7.0	6.1	6.6
4	9.3	1.8	4.5	8.8	8.4	8.7	9.0	7.8	8.4	7.2	6.3	6.8
5	10.1	8.6	9.3	8.5	7.9	8.3	9.2	7.7	8.4	7.8	7.1	7.4
6	9.6	8.5	9.0	8.0	7.7	7.9	9.9	7.9	8.8	8.3	7.4	7.8
7	10.1	7.9	8.9	8.0	3.7	6.6	8.7	7.9	8.5	8.5	7.3	7.8
8	9.7	8.1	8.9	8.5	6.3	8.0	9.0	6.9	7.9	8.8	7.7	7.9
9	9.5	7.9	8.6	9.2	8.5	9.0	9.6	6.8	8.1	8.8	8.0	8.3
10	9.2	7.5	8.3	9.1	8.9	9.0	8.4	6.9	7.6	9.0	8.1	8.6
11	9.3	7.5	8.3	8.9	7.8	8.2	9.0	7.2	8.0	8.4	7.9	8.1
12	9.3	7.5	8.3	8.1	7.8	7.9	8.5	7.1	7.7	8.0	7.8	7.9
13	9.0	7.6	8.[illegible]	8.1	7.8	8.0	8.2	7.0	7.5	8.1	7.6	7.8
14	7.9	7.1	7.5	8.3	7.9	8.1	---	---	---	7.6	7.4	7.5
15	7.8	7.6	8.3	8.3	7.7	8.0	---	---	---	7.8	7.3	7.5
16	9.5	8.6	9.1	8.3	7.4	7.9	8.7	6.8	7.7	8.4	7.9	8.2
17	9.1	8.8	9.0	7.7	7.5	7.6	8.7	6.8	7.7	9.1	8.5	8.7
18	9.0	8.3	8.6	8.2	7.7	8.0	8.9	6.9	7.8	9.5	8.8	9.1
19	8.4	4.1	6.2	8.7	8.2	8.5	8.1	7.1	7.6	9.7	8.5	9.2
20	5.0	3.7	4.4	9.0	8.2	8.6	8.5	7.4	7.8	8.9	7.9	8.4
21	9.6	3.0	5.7	8.3	8.0	8.2	8.8	7.4	8.0	8.6	7.4	8.0
22	8.8	7.9	8.3	8.4	8.1	8.3	8.8	7.3	8.0	8.8	7.4	8.1
23	8.6	8.1	8.4	8.4	7.4	8.1	7.7	6.9	7.6	8.8	7.5	8.1
24	8.7	8.0	8.4	8.0	7.2	7.6	8.7	7.4	8.0	8.7	7.1	7.8
25	8.3	7.5	7.9	7.9	7.0	7.4	8.8	7.5	8.1	8.2	6.8	7.4
26	8.2	7.5	7.9	8.1	6.8	7.4	8.8	7.5	8.1	7.4	6.9	7.6
27	9.3	8.7	8.8	7.3	5.9	6.6	8.9	7.4	8.1	9.6	7.9	8.7
28	9.0	8.5	8.7	7.9	6.3	7.5	8.8	7.4	8.1	9.3	8.9	9.1
29	9.2	8.5	8.8	8.4	7.5	7.9	8.3	7.1	7.6	10.1	9.0	9.5
30	9.0	8.3	8.7	8.0	7.5	7.7	8.0	7.0	7.3	10.0	9.0	9.5
31	---	---	---	7.9	7.4	7.6	7.3	6.5	6.9	---	---	---
MONTH	10.1	1.8	8.0	9.2	3.7	8.0	9.9	6.5	7.9	10.1	6.1	8.0

RESERVOIR IN CHRISTINA RIVER BASIN

01480684 MARSH CREEK RESERVOIR.--Lat 40°03'24", long 75°43'06", Chester County, Hydrologic Unit 02040205, on right bank at dam on Marsh Creek, 0.3 mi (0.5 km) upstream from mouth and 3.2 mi (5.1 km) north of Downingtown. DRAINAGE AREA, 20.1 mi^2 (52.1 km^2). PERIOD OF RECORD, November 1973 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pennsylvania Department of Environmental Resources).

Reservoir formed by earthfill dam with concrete spillway at elevation 359.5 ft (109.58 m). Storage began November 1973. Total capacity 22,190 acre-ft (27.4 hm^3) at elevation 373 ft (113.69 m). Reservoir is used for water supply, flood control, and recreation. Figures given herein represent contents above lowest gate sill at elevation 289.5 ft (88.24 m). Records furnished by Pennsylvania Department of Environmental Resources.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 16,380 acre-ft (20.1 hm^3) Jan. 25, 1979, elevation, 363.49 ft (110.792 m); minimum (after first filling), 10,410 acre-ft (12.8 hm^3) Mar. 3, 1976, elevation, 351.75 ft (107.213 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 16,160 acre-ft (19.9 hm^3) Dec. 14, elevation, 363.10 ft (110.673 m); minimum, 11,400 acre-ft (14.1 hm^3) Oct. 11, 353.95 ft (107.883 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)	Elevation (feet)	Contents (acre-feet)	Change in contents (equivalent in cfs)
	01480684 Marsh Creek Reservoir					
Sept. 30	354.30	11560	--			
Oct. 31	355.05	11940	+ 6.2			
Nov. 30	358.85	13840	+ 31.9			
Dec. 31	360.34	14650	+ 13.2			
CAL YR 1983	--	--	+ 3.7			
Jan. 31	356.80	12810	- 29.9			
Feb. 29	360.00	14460	+ 28.7			
Mar. 31	360.20	14570	+ 1.8			
Apr. 30	360.10	14520	- 0.8			
May 31	361.60	15340	+ 13.3			
June 30	360.09	14510	- 13.9			
July 31	359.87	14390	- 2.0			
Aug. 31	359.90	14400	+ 0.2			
Sept. 30	359.90	14400	0			
WTR YR 1984	--	--	+ 3.9			

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE

LOCATION.--Lat 39°30'03", long 75°34'07", New Castle County, Hydrologic Unit 02040205, on platform about 0.4 mi (0.6 km) downstream from Reedy Island near Port Penn.

DRAINAGE AREA.--11,200 mi^2 (29,100 km^2) approximately.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1963 to current year.
pH: February 1970 to current year.
WATER TEMPERATURES: February 1970 to current year.
DISSOLVED OXYGEN: February 1970 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1970

REMARKS.--Interruptions in the daily record were due to malfunctions of the instrument.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 35,600 micromhos Nov. 15, 1978, minimum, 100 micromhos on several days in 1969, 1970, 1974, and 1979.
pH: Maximum, 8.9 Mar. 4, 1980; minimum, 5.4 Dec. 31, 1972.
WATER TEMPERATURES: Maximum 31.5°C July 19, 1982; minimum, 0.0°C on many days during winter months.
DISSOLVED OXYGEN: Maximum, 17.1 mg/L Dec. 16, 19, 1976; minimum. 0.3 mg/L Sept. 16, 17, 1971.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1983 to SEPTEMBER 1984

	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20700	12400	16200	---	---	---	---	---	---			
2	20900	12900	16600	---	---	---	---	---	---			
3	21300	13000	16000	---	---	---	7000	2240	3860			
4	21100	13400	16100	---	---	---	12500	2480	5500			
5	20600	13300	16200	---	---	---	10600	2400	4760			
6	21000	13500	16300	---	---	---	10000	2520	4580			
7	20600	13100	16100	13600	9520	---	---	---	---			
8	20400	13400	16200	19600	10800	14300	---	---	---			
9	20400	13600	16200	18700	12800	15000	---	---	---			
10	21100	14100	16800	21500	13500	15900	---	---	---			
11	19200	13800	16100	19400	12600	16700	---	---	---			
12	19200	13600	16100	15700	11500	13000	---	---	---			
13	17500	12400	15000	18700	11300	15400	---	---	---			
14	19300	14200	16000	22200	13600	18000	---	---	---			
15	18900	13500	15100	25100	14700	19600	---	---	---			
16	20600	13300	16000	22400	14500	18900	---	---	---			
17	21600	13800	17200	19000	12800	15600	---	---	---			
18	20000	13600	16600	---	---	---	---	---	---			
19	20600	13900	16100	18900	9800	12900	---	---	---			
20	20700	14700	17600	19700	10600	13900	---	---	---			
21	20200	14700	17600	18400	10200	13600	---	---	---			
22	20000	14800	17500	14900	8440	11100	---	---	---			
23	21000	15100	17700	17100	8000	10900	---	---	---			
24	18200	14900	16500	17100	7640	12000	---	---	---			
25	---	---	---	14000	7200	9700	---	---	---			
26	---	---	---	8920	3960	6740	---	---	---			
27	---	---	---	9680	3560	5360	---	---	---			
28	---	---	---	13100	3800	7150	---	---	---			
29	---	---	---	13000	4880	8030	---	---	---			
30	---	---	---	7120	3400	4930	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	21600	12400	16400	25100	3400	12700	12500	2240	4680			

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	8400	2000	4200	5920	1280	2450
2				---	---	---	8000	1800	3520	4200	1000	2080
3				---	---	---	7520	1560	2940	5000	1000	2030
4				---	---	---	6440	1600	2990	6960	1240	2640
5				---	---	---	8760	880	3210	2080	600	1040
6				---	---	---	3920	360	1210	1800	440	738
7				---	---	---	1600	320	781	1520	360	614
8				---	---	---	1160	560	817	1520	360	629
9				---	---	---	2640	440	1080	600	320	408
10				8280	1760	---	3720	360	1570	1200	320	444
11				10900	2920	---	4800	400	1880	1640	320	513
12				5480	1760	---	5320	520	1820	600	280	384
13				9160	2000	---	3720	600	1500	2320	280	493
14				---	---	---	3080	520	1320	1040	280	433
15				---	---	---	4400	640	1630	1800	280	529
16				---	---	---	3600	560	1500	1440	320	506
17				---	---	---	3320	480	1240	2680	320	860
18				---	---	---	1680	360	760	4680	400	1350
19				4920	1800	---	920	320	540	5080	560	1680
20				7200	1760	3280	960	280	426	4800	600	1680
21				7680	1920	4240	480	280	368	3280	600	1540
22				5960	3120	---	1400	280	457	4160	760	1940
23				---	---	---	3600	320	1180	4440	760	1810
24				---	---	---	4880	360	1790	3520	600	1360
25				---	---	---	5360	600	2120	6000	640	2440
26				7080	1800	---	7360	1040	3690	5600	760	2750
27				6920	1680	3980	9120	1800	4510	5960	800	2110
28				8760	1920	4980	7280	2240	3950	6600	880	2500
29				12700	4000	7230	6240	1960	3310	6440	1040	2410
30				10000	2520	5790	5280	1680	2840	3600	240	978
31				9800	2200	5150	---	---	---	680	240	323
MONTH				12700	1680	4950	9120	280	1970	6960	240	1340

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	280	200	224	9120	1920	4160	11200	3560	6190	16100	8840	11900
2	240	160	202	7120	1600	3230	9800	3600	5890	16200	9040	11600
3	2400	160	603	6200	1240	2760	11100	3680	6240	16400	9120	12100
4	2920	160	471	5560	1240	2480	10500	3880	6420	16500	9400	12200
5	2480	160	378	5040	1080	2150	11000	4160	6800	17500	9320	12400
6	1560	160	318	2880	960	1520	12500	4160	6950	16500	9640	12100
7	1840	200	380	1600	600	1010	13100	4440	7400	17000	9240	12100
8	2080	200	493	1360	280	474	14800	4640	7620	17700	9320	12200
9	2760	200	638	2520	280	558	---	---	---	16600	9760	12100
10	3120	240	626	3880	280	603	---	---	---	16300	9880	12000
11	3720	280	937	3960	280	749	---	---	---	15500	9400	11800
12	4280	320	967	4960	440	---	---	---	---	16200	9640	11900
13	4640	440	1280	---	---	---	---	---	---	16600	9400	12400
14	4080	480	1240	---	---	---	10600	5480	---	15900	9920	12500
15	4440	600	1560	---	---	---	12400	5160	7820	15900	9640	12000
16	---	---	---	2720	680	---	12400	5360	8050	18400	9680	13200
17	---	---	---	5080	640	1740	13000	5280	8730	17400	10600	13400
18	4080	1320	---	6080	840	2150	14100	5800	9680	17600	10400	13600
19	6440	1120	2650	5000	680	1960	14600	6280	10600	18600	10200	14200
20	6080	1200	2550	6280	680	2870	15300	7360	11100	19000	10200	13700
21	7480	1280	3700	6040	920	3110	16700	7480	12000	19700	9440	12900
22	9600	1720	5210	6080	1200	3000	18000	7920	12600	19700	9560	13600
23	---	---	---	7320	1120	3230	17300	7480	11200	18000	10500	13500
24	---	---	---	7080	1280	3110	17900	7320	11000	18400	9520	12600
25	---	---	---	10700	1280	3610	19000	7880	12000	18500	9880	13100
26	9760	1760	---	12800	2120	5500	19200	8200	12400	19000	10300	13600
27	9640	2000	4310	12100	3280	6400	18300	8960	12400	19600	10700	13900
28	9320	1440	3460	10700	2600	5220	18000	9280	12400	19800	11500	15000
29	8800	1560	3390	11800	2840	5590	17000	8880	12100	20600	12100	15900
30	9200	1840	3710	11600	3160	5960	16100	8680	11600	21500	12600	16700
31	---	---	---	11200	3360	6230	15800	8840	11700	---	---	---
MONTH	9760	160	1710	12800	280	3050	19200	3560	9640	21500	8840	13000

01482800 DELAWARE RIVER AT REDDY ISLAND JETTY, DE--Continued

PH (UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1	7.6	7.5	7.6	---	---	---	---	---	---			
2	7.6	7.5	7.6	7.0	6.8	---	---	---	---			
3	7.6	6.9	7.3	7.0	6.8	6.9	7.1	6.9	6.9			
4	7.4	6.9	7.0	---	---	---	7.1	6.8	7.0			
5	7.2	6.9	7.0	---	---	---	7.1	6.9	6.9			
6	7.0	6.8	6.9	---	---	---	7.0	6.8	6.9			
7	7.0	6.8	6.9	6.8	6.7	---	---	---	---			
8	7.0	6.8	6.9	6.8	6.6	6.7	---	---	---			
9	7.0	6.8	6.9	6.8	6.6	6.7	---	---	---			
10	6.9	6.8	6.9	6.8	6.6	6.7	---	---	---			
11	7.0	6.8	6.9	6.8	6.7	6.8	---	---	---			
12	7.1	6.9	7.0	6.8	6.7	6.8	---	---	---			
13	7.0	6.9	7.0	6.9	6.8	6.8	---	---	---			
14	7.0	6.9	6.9	7.1	6.8	7.0	---	---	---			
15	7.0	6.8	6.9	7.1	7.0	7.1	---	---	---			
16	7.1	6.8	6.9	7.1	7.0	7.0	---	---	---			
17	7.1	6.9	7.0	7.0	6.9	7.0	---	---	---			
18	7.1	6.9	7.0	---	---	---	---	---	---			
19	7.0	6.9	7.0	7.0	6.8	6.9	---	---	---			
20	7.1	6.9	7.0	7.0	6.8	6.8	---	---	---			
21	7.1	6.9	7.0	7.0	6.8	6.9	---	---	---			
22	7.2	7.0	7.1	7.1	6.8	6.9	---	---	---			
23	7.2	7.0	7.1	7.0	6.8	6.9	---	---	---			
24	7.3	7.2	7.2	7.0	6.8	6.9	---	---	---			
25	---	---	---	6.9	6.7	6.8	---	---	---			
26	---	---	---	7.0	6.7	6.8	---	---	---			
27	---	---	---	7.2	6.8	6.9	---	---	---			
28	---	---	---	7.0	6.7	6.9	---	---	---			
29	---	---	---	7.1	6.9	7.0	---	---	---			
30	---	---	---	6.9	6.8	6.9	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	7.6	6.8	7.0	7.2	6.6	6.9	7.1	6.8	6.9			

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1				---	---	---	7.4	7.1	7.2	7.3	7.2	7.3
2				---	---	---	7.5	7.1	7.2	7.3	7.2	7.3
3				---	---	---	8.0	7.1	7.2	7.2	7.2	7.2
4				---	---	---	7.2	7.1	7.1	7.3	7.2	7.2
5				---	---	---	7.3	7.1	7.2	7.3	7.2	7.2
6				---	---	---	7.3	7.1	7.2	7.2	7.2	7.2
7				---	---	---	7.2	7.1	7.1	7.2	7.1	7.1
8				---	---	---	7.3	7.1	7.2	7.2	7.1	7.1
9				---	---	---	7.8	7.1	7.3	7.2	7.1	7.1
10				7.5	7.1	---	7.4	7.1	7.2	7.2	7.1	7.1
11				7.7	7.3	---	---	---	---	7.2	7.1	7.2
12				7.3	7.1	---	---	---	---	7.2	7.1	7.2
13				7.5	7.3	---	---	---	---	7.3	7.1	7.2
14				---	---	---	---	---	---	7.3	7.1	7.2
15				---	---	---	---	---	---	7.3	7.1	7.2
16				---	---	---	---	---	---	7.3	7.2	7.2
17				---	---	---	---	---	---	7.3	7.2	7.3
18				---	---	---	---	---	---	7.4	7.2	7.2
19				7.2	7.1	---	---	---	---	7.4	7.2	7.2
20				7.5	7.1	7.2	---	---	---	7.3	7.2	7.3
21				7.4	7.1	7.3	---	---	---	7.3	7.2	7.2
22				7.2	7.2	---	---	---	---	7.3	7.2	7.3
23				---	---	---	6.8	6.6	---	7.3	7.2	7.3
24				---	---	---	6.8	6.7	6.8	7.3	7.2	7.3
25				---	---	---	7.0	6.8	6.9	7.4	7.2	7.3
26				7.4	7.1	---	7.2	6.9	7.0	7.4	7.2	7.3
27				7.7	7.1	7.3	7.2	6.9	7.0	7.4	7.3	7.4
28				7.4	7.1	7.2	7.1	6.9	7.0	7.4	7.3	7.4
29				7.3	7.1	7.2	7.0	6.9	7.0	7.4	7.3	7.4
30				7.3	7.1	7.2	7.3	6.9	7.1	7.4	7.1	7.3
31				7.3	7.1	7.2	---	---	---	7.3	7.0	7.1
MONTH				7.7	7.1	7.2	8.0	6.6	7.1	7.4	7.0	7.2

01482800 DELAWARE RIVER AT REDDY ISLAND JETTY, DE--Continued

PH (UNITS), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	7.1	6.9	7.0	7.2	7.1	7.1	7.3	7.2	7.2	7.5	7.4	7.4
2	7.3	7.0	7.1	7.2	7.0	7.1	7.2	7.1	7.2	7.5	7.4	7.5
3	7.2	7.1	7.1	7.1	7.0	7.1	7.2	7.1	7.2	7.6	7.4	7.4
4	7.1	7.0	7.1	7.1	7.0	7.0	7.2	7.1	7.2	7.5	7.4	7.4
5	7.1	6.9	7.0	7.2	7.0	7.1	7.2	7.1	7.2	7.6	7.4	7.5
6	7.0	6.9	6.9	7.2	7.1	7.2	7.2	7.1	7.2	7.7	7.5	7.6
7	7.0	6.9	6.9	7.3	7.1	7.2	7.2	7.1	7.2	7.8	7.6	7.6
8	7.0	6.8	6.9	7.2	7.0	7.2	7.3	7.2	7.2	7.8	7.6	7.6
9	7.0	6.8	6.9	7.2	7.0	7.1	---	---	---	7.8	7.6	7.7
10	7.0	6.8	6.9	7.2	7.0	7.1	---	---	---	7.8	7.6	7.7
11	7.0	6.8	6.9	7.2	7.0	7.1	---	---	---	7.8	7.6	7.6
12	7.0	6.8	6.9	7.2	7.1	---	---	---	---	7.7	7.6	7.6
13	7.0	6.8	6.9	---	---	---	---	---	---	7.7	7.6	7.6
14	7.0	6.9	6.9	---	---	---	7.3	7.2	---	7.7	7.6	7.6
15	7.1	6.9	7.0	---	---	---	7.3	7.2	7.3	7.7	7.5	7.6
16	---	---	---	7.2	7.1	---	7.4	7.3	7.3	7.8	7.6	7.7
17	---	---	---	7.2	7.1	7.2	7.5	7.3	7.4	7.7	7.3	7.5
18	7.0	7.0	---	7.2	7.1	7.2	7.5	7.3	7.4	7.5	7.2	7.3
19	7.1	6.9	7.0	7.2	7.1	7.2	7.5	7.3	7.4	7.4	7.2	7.3
20	7.1	6.9	7.0	7.3	7.1	7.2	7.6	7.3	7.4	7.4	7.2	7.3
21	7.3	7.0	7.1	7.3	7.2	7.2	7.7	7.4	7.5	7.4	7.2	7.3
22	7.2	7.0	7.1	7.3	7.1	7.2	7.7	7.4	7.5	7.5	7.2	7.3
23	---	---	---	7.3	7.1	7.2	7.5	7.4	7.5	7.4	7.2	7.3
24	---	---	---	7.3	7.1	7.2	7.6	7.4	7.5	7.4	7.2	7.3
25	---	---	---	7.4	7.2	7.2	7.7	7.5	7.5	7.3	7.2	7.2
26	7.3	7.1	---	7.3	7.2	7.2	7.7	7.4	7.5	7.3	7.2	7.2
27	7.3	7.1	7.2	7.3	7.2	7.3	7.6	7.4	7.5	7.3	7.2	7.3
28	7.3	7.1	7.2	7.3	7.2	7.3	7.6	7.4	7.4	7.4	7.2	7.3
29	7.2	7.1	7.2	7.3	7.2	7.3	7.5	7.4	7.4	7.4	7.3	7.4
30	7.2	7.1	7.1	7.3	7.2	7.3	7.5	7.4	7.4	7.5	7.3	7.4
31	---	---	---	7.3	7.2	7.2	7.5	7.4	7.4	---	---	---
MONTH	7.3	6.8	7.0	7.4	7.0	7.2	7.7	7.1	7.4	7.8	7.2	7.5

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20.0	19.5	19.5	---	---	---	---	---	---			
2	20.5	19.5	20.0	14.0	13.5	---	---	---	---			
3	21.0	19.5	20.0	14.5	13.5	14.0	9.0	8.5	8.5			
4	21.5	20.0	20.5	---	---	---	8.5	8.0	8.5			
5	21.5	20.5	20.5	---	---	---	8.5	8.0	8.5			
6	21.0	20.5	20.5	---	---	---	8.5	8.0	8.5			
7	21.0	20.0	20.5	12.5	12.0	---	---	---	---			
8	21.0	20.0	20.5	12.5	12.0	12.5	---	---	---			
9	20.5	20.0	20.5	12.5	12.0	12.5	---	---	---			
10	20.0	19.5	20.0	12.5	12.5	12.5	---	---	---			
11	19.5	19.0	19.5	13.0	12.0	12.5	---	---	---			
12	19.5	19.0	19.5	12.0	11.0	11.5	---	---	---			
13	20.0	19.5	19.5	11.5	10.5	11.0	---	---	---			
14	20.0	18.5	19.5	11.0	10.5	11.0	---	---	---			
15	19.5	18.0	19.0	11.0	10.5	11.0	---	---	---			
16	19.5	15.5	18.5	11.5	10.5	11.0	---	---	---			
17	19.0	18.0	18.5	11.0	10.0	10.5	---	---	---			
18	19.0	18.0	18.5	---	---	---	---	---	---			
19	18.5	17.5	18.0	10.5	10.0	10.0	---	---	---			
20	17.5	17.0	17.0	11.0	10.0	10.5	---	---	---			
21	17.0	16.0	16.5	11.0	10.5	10.5	---	---	---			
22	16.5	15.5	16.0	11.0	10.5	10.5	---	---	---			
23	16.0	15.5	15.5	11.0	10.5	10.5	---	---	---			
24	16.0	16.0	16.0	11.0	11.0	11.0	---	---	---			
25	---	---	---	11.0	10.0	10.5	---	---	---			
26	---	---	---	10.0	9.5	10.0	---	---	---			
27	---	---	---	10.5	9.5	10.0	---	---	---			
28	---	---	---	10.5	10.0	10.0	---	---	---			
29	---	---	---	10.5	9.5	10.0	---	---	---			
30	---	---	---	10.0	9.5	10.0	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	21.5	15.5	19.0	14.5	9.5	11.0	9.0	8.0	8.5			

01482800 DELAWARE RIVER AT REDDY ISLAND JETTY, DE--Continued

TEMPERATURE, WATER (°C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1				---	---	---	7.5	6.0	6.5	14.5	13.5	14.0
2				---	---	---	8.0	6.5	7.0	15.0	13.5	14.0
3				---	---	---	9.0	7.0	8.0	14.5	14.0	14.0
4				---	---	---	8.5	7.5	8.0	15.0	14.0	14.5
5				---	---	---	9.5	8.0	8.5	15.5	14.5	15.0
6				---	---	---	9.5	8.5	9.0	15.5	14.5	15.0
7				---	---	---	9.0	8.5	9.0	15.0	14.5	15.0
8				---	---	---	10.0	8.5	9.0	15.5	14.5	15.0
9				---	---	---	10.5	8.5	9.5	16.0	14.5	15.0
10				4.0	3.0	---	11.0	9.0	9.5	16.0	14.5	15.0
11				3.0	3.0	---	11.5	9.5	10.0	16.5	15.0	15.5
12				4.0	3.0	---	12.0	9.5	10.5	17.0	15.5	16.0
13				3.0	3.0	---	11.0	10.0	10.5	17.5	16.0	16.5
14				---	---	---	11.0	10.5	10.5	17.0	16.0	16.5
15				---	---	---	11.0	10.5	10.5	17.0	15.5	16.5
16				---	---	---	11.0	10.5	10.5	16.0	15.5	16.0
17				---	---	---	11.5	10.5	11.0	16.5	15.0	15.5
18				---	---	---	12.0	10.5	11.5	16.0	15.0	15.5
19				5.5	5.0	---	12.0	11.0	11.5	16.0	15.0	15.5
20				6.0	5.0	5.5	12.0	11.0	11.5	17.5	15.5	16.5
21				6.0	5.5	6.0	12.5	11.0	11.5	18.5	16.0	17.0
22				6.0	6.0	---	12.0	10.5	11.5	19.0	16.5	17.5
23				---	---	---	11.5	10.5	11.0	19.5	17.5	18.5
24				---	---	---	11.5	11.0	11.5	20.0	18.0	19.0
25				---	---	---	12.0	11.0	11.5	20.5	18.5	19.0
26				7.5	6.5	---	13.5	11.0	12.0	21.0	19.0	20.0
27				7.5	6.0	6.5	13.5	12.0	12.5	21.0	19.5	20.0
28				6.5	6.0	6.5	13.0	12.5	12.5	20.5	19.5	20.0
29				6.0	6.0	6.0	14.0	12.5	13.0	20.5	19.5	20.0
30				6.5	5.5	6.0	14.5	13.0	13.5	20.0	19.0	19.5
31				6.5	6.0	6.5	---	---	---	20.0	18.5	19.5
MONTH				7.5	3.0	6.0	14.5	6.0	10.5	21.0	13.5	16.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	20.0	18.5	19.0	25.5	24.0	24.5	25.5	24.5	25.0	25.5	25.0	25.0
2	19.5	18.0	19.0	26.0	24.5	25.0	26.5	25.0	25.5	25.5	24.5	25.0
3	19.0	18.0	18.5	26.0	24.5	25.5	26.5	25.0	26.0	26.5	25.0	25.5
4	19.5	17.5	18.5	26.5	25.0	25.5	27.5	25.5	26.0	25.5	24.5	25.0
5	19.5	17.5	18.5	26.5	25.5	26.0	27.5	26.0	26.5	25.5	24.0	24.5
6	20.0	18.0	19.0	26.5	25.5	26.0	27.5	26.0	26.5	24.5	23.5	24.0
7	21.0	18.5	19.5	26.5	25.5	26.0	27.5	26.0	26.5	24.5	22.5	23.5
8	21.5	19.0	20.5	26.0	25.0	25.0	28.5	26.5	27.0	24.0	22.5	23.0
9	22.0	20.0	21.0	25.5	24.5	25.0	---	---	---	24.0	22.5	23.0
10	23.0	21.0	22.0	25.0	24.0	24.5	---	---	---	23.5	22.5	23.0
11	24.0	21.5	22.5	26.0	24.5	25.0	---	---	---	24.0	23.0	23.5
12	24.0	22.5	23.0	25.0	24.5	---	---	---	---	23.5	23.0	23.5
13	25.0	23.0	23.5	---	---	---	---	---	---	23.5	22.5	23.0
14	25.0	23.0	24.0	---	---	---	28.0	27.5	---	24.0	23.0	23.5
15	24.5	23.0	24.0	---	---	---	28.0	27.0	27.5	23.5	22.5	23.0
16	---	---	---	27.0	26.5	---	28.0	27.0	27.5	23.0	21.5	22.0
17	---	---	---	27.0	26.0	26.5	28.0	27.0	27.5	22.5	21.0	22.0
18	23.0	23.0	---	26.5	26.0	26.0	28.0	26.5	27.5	22.5	21.0	21.5
19	24.0	22.5	23.0	26.5	25.5	26.0	27.5	26.5	27.0	22.5	21.0	21.5
20	24.0	23.0	23.5	27.0	25.5	26.0	27.0	25.5	26.5	23.0	21.0	21.5
21	24.5	23.0	23.5	26.0	25.5	25.5	27.5	25.5	26.0	22.5	21.5	22.0
22	25.5	23.0	24.0	26.0	25.0	25.5	27.0	25.5	26.0	23.0	21.5	22.0
23	---	---	---	27.0	25.5	26.0	26.5	25.5	26.0	23.0	21.5	22.0
24	---	---	---	27.0	25.5	26.5	26.0	25.0	25.5	23.5	22.0	22.5
25	---	---	---	27.5	25.5	26.0	26.5	24.5	25.0	23.5	22.0	22.5
26	24.5	23.5	---	27.0	25.0	26.0	27.0	24.5	25.5	23.0	21.5	22.5
27	25.0	23.0	24.0	26.0	25.0	25.5	26.0	25.0	25.5	21.5	20.0	21.0
28	25.0	23.5	24.0	25.5	24.5	25.0	26.0	25.0	25.5	20.5	19.0	19.5
29	25.0	24.0	24.5	25.5	24.5	25.0	25.5	25.0	25.5	19.5	19.0	19.0
30	25.0	24.0	24.5	25.0	24.5	24.5	26.0	25.0	25.5	19.5	18.5	19.0
31	---	---	---	25.5	24.0	25.0	26.0	25.0	25.5	---	---	---
MONTH	25.5	17.5	22.0	27.5	24.0	25.5	28.5	24.5	26.0	26.5	18.5	22.5

01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.0	7.3	7.6	---	---	---	---	---	---			
2	7.5	6.8	7.2	10.7	9.4	---	---	---	---			
3	8.4	6.6	7.5	10.8	9.4	10.3	10.6	10.2	10.3			
4	8.3	7.1	7.8	---	---	---	10.9	10.0	10.6			
5	8.2	7.1	7.6	---	---	---	11.1	9.7	10.4			
6	8.3	6.6	7.6	---	---	---	10.5	9.5	10.0			
7	8.2	6.9	7.7	10.3	9.8	---	---	---	---			
8	8.2	6.9	7.7	10.0	9.3	9.7	---	---	---			
9	8.2	6.9	7.6	9.8	9.1	9.3	---	---	---			
10	8.3	7.0	7.6	9.4	8.9	9.2	---	---	---			
11	8.1	6.8	7.5	9.5	8.9	9.1	---	---	---			
12	7.9	7.1	7.4	9.7	8.7	9.3	---	---	---			
13	7.9	6.9	7.4	9.9	9.3	9.7	---	---	---			
14	8.1	6.8	7.5	10.0	9.5	9.8	---	---	---			
15	8.0	6.9	7.5	10.1	9.7	9.9	---	---	---			
16	8.3	7.1	7.7	10.0	9.6	9.8	---	---	---			
17	9.0	7.1	8.1	11.5	9.7	10.3	---	---	---			
18	9.2	8.0	8.6	---	---	---	---	---	---			
19	9.1	8.1	8.6	10.5	10.3	10.3	---	---	---			
20	8.8	8.2	8.5	10.7	10.2	10.5	---	---	---			
21	8.8	8.3	8.6	11.3	9.8	10.8	---	---	---			
22	8.8	8.2	8.5	11.5	10.0	10.8	---	---	---			
23	8.5	8.0	8.2	11.3	9.8	10.7	---	---	---			
24	8.9	8.1	8.4	11.0	9.9	10.6	---	---	---			
25	---	---	---	12.4	9.6	10.6	---	---	---			
26	---	---	---	11.6	10.1	10.9	---	---	---			
27	---	---	---	11.2	9.8	10.7	---	---	---			
28	---	---	---	11.6	10.1	10.8	---	---	---			
29	---	---	---	11.4	9.8	10.8	---	---	---			
30	---	---	---	11.8	10.3	10.6	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	9.2	6.6	7.9	12.4	8.7	10.2	11.1	9.5	10.3			

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1				---	---	---	12.1	11.6	11.8	9.9	9.1	9.6
2				---	---	---	11.8	10.2	11.2	9.7	8.6	9.1
3				---	---	---	11.6	11.2	11.3	9.3	8.3	8.8
4				---	---	---	11.5	11.0	11.2	9.3	8.0	8.7
5				---	---	---	11.5	10.7	11.1	9.6	8.5	9.3
6				---	---	---	10.9	10.5	10.7	9.6	9.1	9.3
7				---	---	---	11.0	10.4	10.6	9.2	7.9	8.7
8				---	---	---	11.0	10.7	10.8	9.0	8.0	8.6
9				---	---	---	10.9	10.7	10.8	9.1	8.0	8.7
10				11.7	11.3	---	10.8	9.4	10.3	9.2	8.6	8.9
11				11.7	11.0	---	10.7	9.8	10.5	9.2	8.7	9.0
12				12.1	11.9	---	10.4	10.0	10.3	9.1	8.0	8.6
13				12.4	11.9	---	10.4	10.1	10.3	8.7	7.8	8.3
14				---	---	---	10.5	10.2	10.3	8.4	7.3	7.9
15				---	---	---	10.5	10.1	10.3	9.0	8.0	8.6
16				---	---	---	10.5	8.8	10.0	8.8	7.5	8.3
17				---	---	---	10.3	9.8	10.1	9.0	8.0	8.5
18				---	---	---	10.2	9.9	10.1	8.6	8.1	8.4
19				11.9	11.4	---	10.1	9.9	10.0	8.6	7.5	8.1
20				12.6	11.6	12.2	10.0	9.8	9.9	8.1	7.2	7.7
21				12.8	10.8	12.2	10.6	9.8	10.0	8.0	7.0	7.6
22				12.5	11.4	---	10.3	10.1	10.2	7.8	6.9	7.5
23				---	---	---	10.2	9.0	9.9	8.2	7.2	7.7
24				---	---	---	10.2	9.8	10.0	8.3	7.1	7.6
25				---	---	---	10.4	10.0	10.2	7.9	7.0	7.5
26				11.0	10.3	---	10.4	10.1	10.3	8.1	6.8	7.4
27				10.5	9.9	10.2	10.3	10.0	10.2	8.0	7.0	7.5
28				10.4	9.8	10.1	10.2	9.8	10.0	7.9	7.0	7.5
29				11.3	10.2	10.5	10.0	9.6	9.8	8.6	7.6	8.2
30				12.3	10.9	11.5	9.7	8.6	9.3	8.4	7.5	8.0
31				12.2	11.8	12.0	---	---	---	7.8	5.7	6.9
MONTH				12.8	9.8	11.2	12.1	8.6	10.4	9.9	5.7	8.3

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01482800 DELAWARE RIVER AT REEDY ISLAND JETTY, DEL--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	6.9	5.7	6.3	---	---	---	6.7	6.2	6.5	6.0	5.2	5.6
2	8.0	6.1	7.1	6.2	5.6	---	6.4	5.8	6.1	6.0	5.2	5.6
3	7.1	6.6	6.9	5.6	4.0	4.8	6.1	5.6	5.8	5.6	5.0	5.3
4	7.2	6.5	6.8	4.2	3.3	3.7	6.1	5.6	5.8	5.7	5.1	5.4
5	7.3	6.4	7.0	5.1	3.2	3.8	5.9	5.3	5.7	7.0	5.1	5.8
6	7.1	6.5	6.9	6.1	4.6	5.4	6.7	5.4	5.9	7.1	6.2	6.6
7	7.1	6.4	6.9	6.4	5.7	6.0	7.1	5.5	6.6	7.1	6.3	6.7
8	7.5	6.2	6.9	6.2	4.9	5.8	7.5	6.2	6.6	7.1	6.2	6.6
9	7.5	6.4	7.0	6.6	4.9	5.8	---	---	---	7.3	6.3	6.7
10	7.3	5.4	6.7	6.5	5.5	6.1	---	---	---	7.7	6.4	7.0
11	6.7	5.5	6.2	6.4	5.5	6.0	---	---	---	7.5	6.9	7.2
12	5.8	4.7	5.4	6.2	5.7	---	---	---	---	7.2	6.7	7.0
13	5.1	4.3	4.7	---	---	---	---	---	---	7.1	6.6	6.8
14	4.5	3.8	4.2	---	---	---	6.8	5.8	---	7.2	6.3	6.6
15	4.4	3.8	4.0	---	---	---	6.8	5.9	6.4	6.8	6.1	6.4
16	---	---	---	6.3	5.4	---	6.7	5.8	6.1	6.6	6.0	6.3
17	---	---	---	6.2	5.3	5.7	6.6	5.9	6.1	7.7	5.8	6.7
18	6.0	5.7	---	---	---	---	6.5	5.6	6.0	7.9	6.6	7.3
19	5.8	4.9	5.2	---	---	---	6.1	5.3	5.7	7.7	6.5	7.2
20	5.4	4.9	5.1	---	---	---	6.2	4.9	5.4	7.5	6.4	7.0
21	5.8	4.9	5.3	---	---	---	6.2	4.9	5.4	7.4	6.8	7.1
22	5.5	4.9	5.2	---	---	---	5.4	4.3	4.9	7.3	6.6	7.0
23	---	---	---	---	---	---	5.2	4.4	4.8	7.2	5.9	6.7
24	---	---	---	---	---	---	5.3	4.5	4.9	7.0	6.3	6.6
25	---	---	---	6.8	6.2	---	5.6	4.8	5.1	6.7	5.7	6.3
26	6.7	6.0	---	6.8	6.0	6.3	5.9	4.8	5.2	6.8	6.1	6.3
27	6.2	5.6	5.9	6.8	6.2	6.5	5.4	4.6	4.9	6.9	6.2	6.6
28	6.1	5.2	5.7	6.8	6.3	6.5	5.9	4.5	5.0	7.3	6.5	6.9
29	5.6	4.9	5.3	6.7	6.2	6.4	6.3	4.9	5.7	7.2	6.5	6.9
30	---	---	---	7.2	6.3	6.7	6.0	5.3	5.7	7.3	6.8	7.1
31	---	---	---	7.0	6.2	6.8	6.0	5.3	5.6	---	---	---
MONTH	8.0	3.8	5.9	7.2	3.2	5.8	7.5	4.3	5.7	7.9	5.0	6.6

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are colleced is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial record stations

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum Date	Annual Maximum Gage height (feet)	Annual Maximum Discharge (ft^3/s)
		LACKAWAXEN RIVER BASIN					
01427950	W.B. Lackawaxen River near Aldenville, Pa.	Lat 41°40'28", long 75°22'35", Wayne County, at bridge on State Highway 247, 0.3 mi downstream from Johnsons Creek and 2.0 mi northwest of Aldenville. Datum of gage is 1,244.60 ft National Geodetic Vertical Datum of 1929.	40.6	1975-84	4- 5-84	7.22	3,210
01429300	Dyberry Creek above Reservoir near Honesdale, Pa.	Lat 41°39'26", long 75°17'12", Wayne County, on right bank 955 ft downstream from bridge on West Branch Dyberry Creek at Tanners Falls, 0.2 mi downstream from confluence of the east and west branches of Dyberry Creek, and 6 mi north of Dyberry. Datum of gage is 1,023.43 ft National Geodetic Vertical Datum of 1929.	45.8	1975-84	5-29-84	10.45	2,260
01430000	Lackawaxen River near Honesdale, Pa.	Lat 41°35'43", long 75°14'54", Wayne County, at Lemnitzer Bridge in Honesdale, on U.S. Highway 6 and 1.2 mi downstream from Dyberry Creek.	164	1949-69‡ 1974-84	4- 5-84	7.30	5,680
01431000	Middle Creek near Hawley, Pa.	Lat 41°29'05", long 75°13'20", Wayne County, at bridge on L.R. 63022, 0.1 mi below Red Shale Brook, 2 mi northwest of Hawley, and 2.5 mi above mouth.	78.4	1945-60‡ 1961-84	5-29-84	8.26	3,810
		VANDERMARK CREEK BASIN					
01438300	Vandermark Creek at Milford, Pa.	Lat 41°19'35", long 74°47'50", Pike County, at stone bridge on Broad Street in Milford, and 0.4 mi above mouth. Datum of gage is 490.50 ft National Geodetic Vertical Datum of 1929.	5.36	1962-84	4- 5-84	3.03	168
		BRODHEAD CREEK BASIN					
01440300	Mill Creek at Mountainhome, Pa.	Lat 41°09'50", long 75°16'00", Monroe County, at stone-arch bridge on macadam road 0.5 mi east of Mountainhome, and 1.5 mi above mouth.	5.84	1961-84	4- 5-84	11.38	1,230

‡ Operated as a continuous-record station.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Annual Maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		BRODHEAD CREEK BASIN--CONTINUED					
01440900	McMichael Creek near Stroudsburg,	Lat 40°48'04", long 75°13'08", Monroe County, at bridge on Dreher Ave., 2 mi southwest of Stroudsburg, 3.2 mi upstream from mouth.	63.9	1975-84	4- 5-84	8.68	3,760
		MARTINS CREEK BASIN					
01446600	Martins Creek near East Bangor, Pa.	Lat 40°54'00", long 75°12'08", Northampton County, at stone-arch culvert on Township Road 722, 1.8 mi northwest of East Bangor	10.4	1961-78‡ 1979-84	5-29-84	3.38	498
		LEHIGH RIVER BASIN					
01450455	Buckwha Creek at Little Gap, Pa.	Lat 40°49'21", long 75°32'04", Carbon County, at bridge on L.R. 13035, 0.35 mi upstream from mouth and 0.75 mi south of Little Gap.	42.5	1975-84	4- 5-84	8.87	2,270
01451192	Lehigh River at Allentown, Pa.	Lat 40°36'23", long 75°27'17", Lehigh County, on upstream side of Hamilton Street Bridge, at allentown, 200 ft downstream from lock and dam, and 0.7 mi upstream from Little Lehigh Creek.	1,033	1977-81d 1982-34	-	-	+
		SCHUYLKILL RIVER BASIN					
01467500	Schuylkill River at Pottsville, Pa.	Lat 40°40'53", long 76°11'25", Schuylkill County, at bridge on State Highway 61 at Pottsville, and 1.7 mi downstream from Mill Creek.	53.4	1975-84	12-13-83	7.61	2,110
01467948	West Branch Schuylkill River near Cressona, Pa.	Lat 40°38'30", long 76°11'43", Schuylkill County, at bridge on Gordon-Nagle Trail, 0.75 mi upstream from Panther Creek, and 1.0 mi north of Cressona.	52.5	1975-84	12-13-83	5.62	1,700
01470190	Little Schuylkill River at Port Clinton, Pa.	Lat 40°35'24", long 76°01'43", Schuylkill County, 0.65 mi upstream from Rattling Run and 0.7 mi north of Port Clinton.	132	1975-84	12-13-83	9.23	6,450
01470748	Sacony Creek near Virginville, Pa.	Lat 40°31'27", long 75°51'29", Berks County, at bridge on L.R. 06135, 1.0 mi upstream from mouth, and 1.0 mi east of Virginville.	54.1	1975-84	4- 5-84	8.68	2,340
01470766	Schuylkill River at Temple, Pa.	Lat 40°24'52", long 75°56'23", Berks County, at concrete bridge on State Highway Route 383, 0.7 mi downstream from mouth of Maiden Creek, 0.6 mi west of Temple.	641	1978-84	12-14-83	18.42	25,500

‡ Operated as a continuous-record station.
+ Not determined due to reconstruction of dam.
b Revised
d Operated as a low-flow partial-record station.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum Date	Annual Maximum Gage height (feet)	Annual Maximum Discharge (ft^3/s)
		SCHUYLKILL RIVER BASIN--CONTINUED					
01470810	Northkill Creek at Bernville, Pa.	Lat 40°26'22", long 76°07'12", Berks County, at bridge on State Highway 183, 0.3 mi upstream from Little Northkill Creek and 0.7 mi northwest of Bernville.	18.8	1975-84	7- 7-84	7.42	1,800
01470818	Little Northkill Creek near Bernville, Pa.	Lat 40°26'33", long 76°07'23", Berks County, at bridge on L.R. 06013, 1.5 mi west of Bernville and 1.6 mi upstream from mouth.	21.2	1975-81 1983-84	5-29-84	6.21	1,140
01471660	Schuylkill River at Birdsboro, Pa	Lat 40°16'04", long 75° 48'40", Berks county, on Railrod Bridge, on right bank 1,000 feet upstream from Route 82 Bridge, Crossing Schuylkill River in Birdsboro	976	1981-84	12-14-83	156.02	24,200
01472162	Schuylkill River at Phoenixville, Pa.	Lat 40°08'11", long 75°30'41", Chester County, on the downstream end of the left bank wingwall of Reading Railroad bridge across the mouth of French Creek at Phoenixville.	1,280	1971-84	12-14-83	87.93	37,000
01473193	Schuylkill River at Port Kennedy, Pa.	Lat 40°06'29", long 75°25'16", Montgomery County, on left bank 200 ft upstream from Betzwood Bridge, and 4.0 mi downstream from Perkiomen Creek at Port Kennedy.	1,691	1977-84	7- 7-84	72.31	50,600
01473470	Stony Creek at Norristown, Pa.	Lat 40°07'38", long 75°20'43", Montgomery County, on right bank at culvert on Steiger Street in Norristown, 0.1 mi downstream from dam, 0.7 mi downstream from unnamed tributary, and 1.1 mi upstream from mouth.	20.4	1975-84	5-29-84	8.68	9,700
01473500	Schuylkill River at Norristown, Pa	Lat 40°06'40", long 75°20'50", Montgomery County, on right bank at Conrail Bridge pier, 600 ft upstream from Dekalb Street Bridge in Norristown.	1,760	1981-84	12-14-83	62.94	42,700
		DARBY CREEK BASIN					
01475555	Hermesprota Creek at Darby, Pa.	Lat 39°54'02", long 75°16'19", Delaware County, on right bank at culvert on Linden Avenue in Darby, 1.7 mi upstream from mouth.	1.01	1975-84	7- 7-84	5.02	+
01475560	Stony Creek at Prospect Park, Pa.	Lat 39°53'14", long 75°19'00", Delaware County, on left bank at culvert and dam on 13th Street in Propsect Park.	2.29	1975-84	7- 7-84	11.00	342
01475600	Muckinipattis Creek at Glenolden, Pa	Lat 39°53'44", long 75°19'00", Delaware County, on left bank at Glenolden Avenue in Glenolden, 1.5 mi upstream from mouth.	3.50	1975-84	7- 7-84	6.70	1,070
		CRUM CREEK BASIN					
01476000	Crum Creek at Bullens Lane near Woodlyn, Pa.	Lat 39°52'44", long 75°20'58", Delaware County, on right bank at bridge on Bullens Lane in Woodlyn.	33.3	1931-37‡ 1975-84	4- 5-84 8- 8-81	7.52 8.02	1,950 2,290b

‡ Operated as a continuous-record station.
+ Not determined.
b Revised.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		RIDLEY CREEK BASIN					
01476435	Ridley Creek at Dutton Mill near West Chester, Pa.	Lat 39°58'52", long 75°31'02", Chester County, on left bank at Strasburg Road, 0.1 mi west of Dutton Mill and 4.9 mi east of West Chester.	9.70	1975-84	5-29-84	4.38	518
01476500	Ridley Creek at Moylan, Pa.	Lat 39°54'08", long 75°23'32", Delaware County, on upstream left bank of Manchester Road bridge intersection with Knowltown Road, at Moylan, and 1.0 mi south of Media.	31.9	1978-84	4- 5-84	6.09	+
		CHESTER CREEK BASIN					
01476836	East Branch Chester Creek near West Chester, Pa.	Lat 39°56'09", long 75°32'29", Chester County, at bridge on Street Road, 0.4 mi upstream from Goose Run, 1.1 mi northwest of Cheyney, and 3.8 mi east of the intersection of Pa. route 100, and U.S. Highway 202 in West Chester.	10.8	1975-84	12-12-83	7.02	825
01476853	East Branch Chester Creek at Cheyney, Pa.	Lat 39°55'58", long 75°31'03", Delaware County, at bridge on Station Road, 0.5 mi northeast of Cheyney and 1.5 mi downstream from Goose Run.	22.8	1975-84	12-12-83	8.87	870
01476950	West Branch Chester Creek near Chester Heights, Pa.	Lat 39°52'36", long 75°27'05", Delaware County, at bridge on Birney Road at Aston Mills, 1.2 mi upstream from confluence with East Branch, and 1.3 mi southeast of Chester Heights.	18.0	1975-84	4- 5-84	6.65	1,920
		CHRISTINA CREEK BASIN					
01478200	Middle Branch White Clay Creek near Landenberg, Pa.	Lat 39°46'54", long 75°48'03", Chester County, at bridge on L.R. 15017, 1.4 mi above mouth, and 1.7 mi west of Landenberg.	12.7	1960-84	7- 7-84	6.96	690
01480610	Sucker Run near Coatesville, Pa.	Lat 39°58'20", long 75°51'03", Chester County, at concrete bridge on South Park Avenue at State Highway 372, 1.6 mi above mouth, and 2 mi west of Coatesville.	2.57	1964-84	7-20-81 1- 4-82 5-22-83 7- 7-84	6.29 5.71 5.59 5.21	684b 511b 477b 376

+ Not determined.
b Revised

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. These measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1984

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (cfs)
		EQUINUNK CREEK BASIN				
01427200	Equinunk Creek near Equinunk, Pa.	Lat 41°50'15", long 75°13'55", Wayne County, at highway bridge 700 ft downstream from South Branch Equinunk Creek, and 1.4 mi above mouth and Equinunk.	56.3	1946-57 1978-84	10-05-83 10-19-83 5-25-84 6-08-84 6-15-84 8-02-84 8-31-84 9-13 84 9-21-84	3.7 11.0 10.9c 60.0c 32.7c 26.6c 5.1 8.7 5.5
		CALKINS CREEK BASIN				
01427700	Calkins Creek at Milanville, Pa.	Lat 41°40'12", long 75°04'07", Wayne County, at Milanville, 300 ft downstream from confluence of North and South Branches, and 0.6 mi upstream from mouth.	44.0	1958-64 1966-69 1981-84	10-05-83 9-13-84	2.4 5.4
		LACKAWAXEN RIVER BASIN				
01428800	West Branch Lackawaxen River at Aldenville, Pa.	Lat 41°38'38", long 75°21'36", Wayne County, at bridge on State Highway 170, 0.3 mi southeast of Aldenville, and 4.5 mi north of Prompton.	48.9	1970-78 1981-84	10-05-83 9-13-84	7.7 22.9
		SHOHOLA CREEK BASIN				
01432500	Shohola Creek near Shohola,Pa.	Lat 41°27'20", long 74°55'25", Pike County, 1.7 mi upstream from mouth, and 1.4 mi south of Shohola. Prior to 1959 at highway bridge 0.4 mi upstream.	83.6	1920-28‡ 1957-80b 1981-84	10-05-83 5-24-84 6-21-84 7-30-84 9-12-84 9-13-84	8.0 20.9c 84.3c 72.6c 12.7c 9.8
		BUSH KILL BASIN				
01439700	Little Bush Kill at Bushkill Pa.	Lat 41°05'30", long 75°00'15", Pike County, at highway bridge 175 ft upstream from mouth, at Bush Kill.	33.0	1958-69 1981-84	10-06-83 9-20-84	9.9 3.9
		BRODHEAD CREEK BASIN				
01440500	Paradise Creek at Henryville, Pa.	Lat 41°06'00", long 75°15'05", Monroe County, 400 ft upstream from concrete bridge on State Highway 191, about 600 ft upstream from confluence with Cranberry Creek, and 0.5 mi northwest of Henryville.	30.2	1908-14‡ 1981-84	10-06-83 9-26-84	11.3 12.9
01441000	McMichael Creek at Stroudsburg, Pa.	Lat 40°58'45", long 75°12'05", Monroe County, at bridge on Interstate Highway 80, 0.25 mi upstream from Little Pocono Creek, and 0.7 mi southwest of Stroudsburg.	65.3	1911-38‡ 1970-74 1981-84	10-11-83 9-18-84	19.0 34.0

‡ Operated as a continous-record station.
b Operated as a miscellaneous station.
c Not base flow.

Discharge measurements made at low-flow partial-record stations during water year 1984--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements Date	Discharge (cfs)
		BRODHEAD CREEK BASIN--Continued				
01441500	Pocono Creek near Stroudsburg, Pa.	Lat 40°59'10", long 75°13'35", Monroe County, at bridge on county road, 0.3 mi upstream from Flagler Run, 1.3 mi west of Stroudsburg, and 1.9 mi upstream from mouth.	41.0	1911-19‡ 1970-76 1982-84	10-11-83 9-18-84	10.7 16.4
01442600	Marshall Creek at Minisink Hills, Pa.	Lat 40°59'53", long 75°08'25", Monroe county, at bridge on rural road, 600 ft upstream from mouth, at Minisink Hills.	27.1	1958-72 1981-84	10-06-83 09-25-84	4.6 6.1
		JACOBY CREEK BASIN				
01443100	Jacoby Creek at Portland, Pa.	Lat 40°55'00", long 75°06'19", Northampton County, at county highway bridge, 0.6 mi southwest of Portland and 0.7 mi upstream from mouth.	6.17	1970-84	10-11-83 09-18-84	3.4 5.5
		MARTINS CREEK BASIN				
01446650	Martins Creek below Little Martins Creek at Martins Creek, Pa.	Lat 40°47'02", long 75°11'08", Northampton County, at bridge on State Highway 611 in village of Martins Creek and 0.9 mi upstream from mouth.	43.4	1932 1970-84	09-18-84	14.9
		BUSHKILL CREEK BASIN				
01446900	Bushkill Creek near Easton, Pa.	Lat 40°42'38", long 75°14'46", Northampton County, at bridge just west of Bushkill Drive at Coilton, 0.8 mi downstream from Schoeneck Creek and 2.5 mi north of Easton.	72.0	1970-78b 1982-84	09-18-84	47.3
		LEHIGH RIVER BASIN				
01447750	Bear Creek near White Haven, Pa.	Lat 41°10'42", long 75°45'21", Luzerne County, at bridge on State Highway 115, at Bear Creek, 200 ft downstream from Bear Creek Dam, 8 mi southeast of Wilkes-Barre, and 8.3 mi north of White Haven.	35.0	1959-69 1981-84	09-26-84	8.4
01448100	Sandy Run near White Haven, Pa.	Lat 41°00'31", long 75°46'08", Luzerne County, at bridge on L.R. 40118, 800 ft upstream from Pond Creek, and 3.8 mi south of White Haven.	10.9	1970-78 1981-84	09-26-84	3.9
01449300	Mahoning Creek at Lehighton, Pa.	Lat 40°49'30", long 75°42'04", Carbon County, at mouth at Lehighton.	38.3	1946 1955 1981-84	09-12-84	8.1
01449355	Middle Creek at Kresgeville, Pa.	Lat 40°54'03", long 75°29'50", Monroe County, at bridge on U.S. Highway 209 at Kresgeville, 0.5 mi downstream from Dotters Creek, and 0.5 mi upstream from mouth.	18.6	1970-78 1981-84	09-12-84	13.0
01451110	Hokendauqua Creek near Northampton, Pa.	Lat 40°42'50", long 75°29'45", Northampton County, at bridge on county road, 1.7 mi north of Northampton, and 3.3 mi upstream from mouth.	38.1	1970-78 1981-84	09-27-84	7.5

‡ Operated as a continous-record station.
b Operated as a miscellaneous station.

Discharge measurements made at low-flow partial-record stations during water year 1984--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements Date	Measurements Discharge (cfs)
		LEHIGH RIVER BASIN--Continued				
01451165	Catasauqua Creek at Catasauqua, Pa.	Lat 40°38'52", long 75°28'06", Lehigh County, at bridge on North Daulphin Street, Catasauqua, 0.1 mi upstream from mouth.	15.7	1970-78 1981-84	09-27-84	4.0
01451900	Jordan Creek near Stetlersville, Pa.	Lat 40°37'46", long 75°33'13", Lehigh County, at covered bridge on rural road, 0.5 mi north of Stetlersville.	70.4	1967-69b 1981-84	09-27-84	.34
01452300	East Branch Monocacy Creek near Bath, Pa.	Lat 40°43'10", long 75°22'10", Northampton County, on left bank 25 ft downstream from bridge on L.R. 40863, 1.5 mi southeast of Bath, and 2.5 mi upstream from mouth. Datum of gage is 372.06 ft, National Geodetic Vertical Datum of 1929.	5.35	1962-68‡ 1969-81c 1982-84	09-27-84	0
01457790	Cooks Creek at Durham Furnace, Pa.	Lat 40°34'56", long 75°12'20", Bucks County, on east side of Red Brick Road, 0.1 mi north of State Highway 212, 0.5 mi upstream from mouth and Durham Furnace.	29.4	1934,1944 1949-50 1970-78 1981-84	9-26-84	1.15
		TINICUM CREEK BASIN				
01458900	Tinicum Creek near Ottsville, Pa.	Lat 40°28'14", long 75°08'13", Bucks County, at concrete bridge on gravel road, 0.9 mi below confluence of Rapp Creek and Beaver Creek, 1.5 mi east of Ottsville, and 5.3 mi above mouth.	14.7	1971-81c 1982-84	9-26-84	.12
		TOHICKON CREEK BASIN				
01459100	Beaver Run tributary at Quakertown, Pa.	Lat 40°26'37", long 75°19'42", Bucks County, at concrete weir upstream from twin concrete-arch culvert on Erie Avenue at intersection with Elm Street in Quakertown, 0.2 mi upstream from mouth.	2.42	1961-68 1981-84	09-26-84	.20
01459150	Tohickon Creek near Quakertown, Pa.	Lat 40°26'26", long 76°18'42", Bucks County, 1,000 ft downstream from county highway bridge and 1 mi east of Quakertown.	27.5	1970-78 1981-84	9-26-84	2.4
		JERICHO CREEK BASIN				
01462300	Jericho Creek at Washington Crossing, Pa.	Lat 40°18'40", long 74°54'23", Bucks County, at bridge on State Highway 32, 0.3 mi upstream from mouth, and 2.5 mi northwest of Washington Crossing.	9.52	1971-84	9-26-84	0
		NESHAMINY CREEK BASIN				
01464750	Neshaminy Creek near Rushland, Pa.	Lat 40°15'33", long 75°02'06", Bucks County, 0.25 mi upstream from Little Neshaminy Creek, at Rushland.	91	1933,1950 1963-64b 1981-84	9-27-84	18
01464900	Park Creek near Warrington, Pa.	Lat 40°13'24",long 75°08'42", Bucks County. at mouth, 0.3 mi upstream from bridge on State Highway 611 across Little Neshaminy Creek, and 2.0 mi southwest of Warrington.	11.8	1946-57 1981-84	8-28-84	.31

‡ Operated as a continous-record station.
b Operated as miscellaeous station.
c Operated as a crest-stage partial-record station.

Discharge measurements made at low-flow partial-record stations during water year 1984--continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (cfs)
		NESHAMINY CREEK BASIN--Continued				
01465000	Neshaminy Creek at Rushland, Pa.	Lat 40°15'20", long 75°02'00", Bucks County, at Railroad bridge 0.1 mi downstream from Little Neshaminy Creek, 0.2 mi southwest of Rushland, and 0.4 mi upstream from Mill Creek.	134	1885-1913‡ 1932-34 ‡ 1981-84	9-26-84	29
01465100	Mill Creek at Rushland, Pa.	Lat 40°15'35", long 75°01'34", Bucks County, at bridge on L.R. 09047 at Rushland.	21.6	1950 1981-84	9-26-84	3.1
		POQUESSING CREEK BASIN				
01465790	Byberry Creek at Chalfont Road, Philadelphia, Pa.	Lat 40°05'01", long 74°58'57", Philadelphia County, on right bank 200 ft downstream from Chalfont Road Bridge, 0.2 mi downstream from Walton Run, at Philadelphia.	5.34	1964-78‡ 1981-84	8-28-84	.36
		FRANKFORD CREEK BASIN				
01467084	Rock Creek above Curtis Arboretum near Philadelphia Pa.	Lat 40°04'54", long 75°09'03", Montgomery County, on right bank 60 ft upstream from stone-arch bridge, 1,600 ft upstream from Washington Lane, Cheltenham Township, and about 1.2 mi upstream from mouth.	1.15	1971-78‡ 1981-84	8-28-84	1.5
		SCHUYLKILL RIVER BASIN				
01467470	Schuylkill River at Port Carbon, Pa.	Lat 40°41"40", long 76°09'55", Schuylkill County, at bridge 550 ft upstream from Mill Creek, at Port Carbon.	27.1	1949-50 1963-64b 1981-84	9-14-84	18
01469100	Bear Creek near Auburn, Pa.	Lat 40°35'27", long 76°07'00", Schuylkill County, at bridge on rural road, 1 mi west Auburn, and 2.2 mi upstream from mouth.	Not Determined	1965b 1981-84	9-14-84	2.3
01469290	Pine Creek at Barnesville, Pa.	Lat 40°49'09", long 76°01'06", Schuylkill County, 0.1 mi south of State Highway 45, and 0.8 mi east of Barneville.	7.33	1964b 1981-84	9-14-84	1.1
01470720	Maiden Creek tributary at Lenhartsville, Pa.	Lat 40°34'23", long 75°52'34", Berks County, at bridge on U.S. Highway 22, 0.5 mi east of Lenhartsville, and 0.5 mi upstream from mouth.	7.46	1961-65* 1965-81‡ 1981-84	9-17-84	.35
01470758	Moselem Creek near Shoemakersville, Pa.	Lat 40°30'10", long 75°52'47", Berks County, at bridge on county road, 0.35 mi upstream from mouth, 2.8 mi west of Moselem Springs, and 5 mi east of Shoemakersville.	13.5	1970-78 1981-84	9-17-84	16
01470800	Tulpehocken Creek at Bernville, Pa.	Lat 40°25'35", long 76°06'45", Berks County, at a single-span concrete highway bridge on L.R. 06047, 600 ft upstream from confluence with Northkill Creek, and 0.5 mi south of Bernville.	84.8	1944 1951 1955 1957 1972-77b 1981-84	9-27-84	58
*01470810	Northkill Creek at Bernville, Pa.	Lat 40°26'22", long 76°07'12", Berks County, at bridge on State Highway 183, 0.3 mi upstream from Little Northkill Creek and 0.7 mi northwest of Bernville.	18.8	1975-77* 1979-84	2-28-84	64c

* Also a crest-stage partial-record station.
‡ Operated as a continous-record station.
b Opeated as a miscellaneous station.
c Not base flow.

Discharge measurements made at low-flow partial-record stations during water year 1984--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements	
					Date	Discharge (cfs)
		SCHUYLKILL RIVER BASIN--Continued				
*01470818	Little Northkill Creek near Bernville, Pa.	Lat 40°26'33", long 76°07'23", Berks County, at bridge on L.R. 06013, 1.5 mi west of Bernville and 1.6 mi upstream from mouth.	21.2	1975-77* 1979-84	2-28-84	82c
01471520	Wyomissing Creek at West Reading, Pa.	Lat 40°19'46", long 75°56'23", Berks County, at West Reading, and 180 ft upstream from mouth.	15.6	1948-53d 1981-84	9-25-84	19
01471620	Allegheny Creek at Gibralter, Pa.	Lat 40°17'06", long 75°52'25", Berks County, 600 ft upstream from Schuylkill Canal, at Gibralter.	17.9	1967b 1981-84	9-25-84	10
01471800	Pine Creek near Manatawny, Pa.	Lat 40°24'43", long 75°44'02", Berks County, at steel bridge on macadam road, at Lobachsville, 0.5 mi upstream from mouth, 0.5 mi below West Branch Pine Creek and 2 mi north of Manatawny.	15.6	1970-81* 1982-84	9-19-84	4.7
01471900	Manatawny Creek at Earlville, Pa.	Lat 40°19'05", long 75°44'01", Berks County, at bridge on State Highway 562 at Earlville, and 2.7 mi south of Spangsville.	60.9	1947-57 1981-84	9-19-84	46
01472175	Unnamed tributary to Pickering Creek near Ludwigs Corne, Pa.	Lat 40°06'06", long 75°39'32", Chester County, at bridge on rural road, 2.1 mi southeast of Ludwigs Corner.	1.87	1967-68b 1981-84	9-20-84	.24
01472190	Pickering Creek near Phoenixville, Pa.	Lat 40°06'33", long 75°31'42", Chester County, at bridge on Creek Road at State Highway 29, 0.3 mi downstream from Conrail bridge, 1 mi south of Phoenixville, and 2.6 mi upstream from Pickering Creek Dam.	31.4	1967-68‡ 1975b 1978-80b 1981-84	10- 5-83 2- 9-84 5- 1-84 5-30-84 5-30-84	15 48 71 531c 571c
01472280	Macoby Creek at Green Lane, Pa.	Lat 40°20'22", long 75°28'20", Montgomery County, at bridge on State Highway 29, at Green Lane, and 0.1 mi upstream from mouth.	17.4	1949 1981-84	9-26-84	1.10
01472450	Unami Creek at Sumneytown, Pa.	Lat 40°19'34", long 75°27'00", Montgomery County, at bridge on State Highway 63, at Sumneytown.	47	1946a,b 1951a,b 1981-84	9-26-84	5.2
01472800	East Branch Perkiomen Creek near Harleysville, Pa.	Lat 40°16'25", long 75°24'55", Montgomery County, at bridge on L.R. 46023, and 1.5 mi southwest of Harleysville.	56.4	1958-69 1981-84	9-27-84	3.8
01473100	Zacharias Creek near Skippack, Pa.	Lat 40°12'26", long 75°21'57", Montgomery County, at concrete weir, 1.2 mi upstream from mouth, and 2.2 mi southeast of Skippack.	7.27	1960-80* 1981-84	9-20-84	.38
01473200	Trout Creek near Valley Forge, Pa.	Lat 40°05'25", long 75°25'24", Chester County, at bridge on Richard Road, 750 ft upstream from bridge on State Highway 23, and 2.2 mi east of Valley Forge.	6.55	1946-57 1981-84	9-21-84	1.30

* Also a crest-stage partial-record station.
‡ Opeated as a continous-record station.
a Published as "at Camp Belmont".
b Operated as a miscellaneous station.
c Not base flow.
d Published as Wyomissing Creek near Reading.

Discharge measurements made at low-flow partial-record stations during water year 1984--Continued

Station No.	Station name	Location	Drainage area (mi²)	Period of record	Measurements Date	Measurements Discharge (cfs)
		CHRISTINA CREEK BASIN				
01478150	East Branch White Clay Creek at Landenberg, Pa.	Lat 39°46'40", long 75°46'18", Chester County, at county highway bridge at Landenberg, 1.4 mi downstream from Egypt Run and 4 mi southeast of West Grove.	25.6	1970-78 1980-84	9-27-84	21
01479700	West Branch Red Clay Creek near Kennett Square, Pa.	Lat 39°48'39", long 75°42'19", Chester County, at county highway bridge on Kaolin Road, 1 mi upstream from East Branch Red Clay Creek, 1.4 mi east of Kaolin and 2.5 mi south of Kennett Square.	17.0	1970-78 1980-84	9-27-84	16
01494980	Big Elk Creek near Lewisville, Pa.	Lat 39°44'08", long 75°52'53", Chester County, at Fergusons Bridge on State Highway 841, 0.9 mi north of Lewisville.	31.2	1976-79b 1981-84	9-27-84	26

b Operated as a miscellaneous station.

Discharge measurements made at miscellaneous sites during water year 1984

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		SCHUYLKILL RIVER BASIN				
Gold Spring Run	Mill Creek	Lat 40°20'12", long 76° 11' 52", Lebanon County, 1.1 miles southeast of Newsmanstown, near Eagle Peak.	0.65	-	5-18-83	.66
					6- 7-83	.56
					7-20-84	1.15
					7-20-84	.67
					8-24-84	.28
					9-27-84	.22
Pigeon Creek	Schuylkill River	Lat 40°12'03", long 75°37'10", Chester County, at bridge on Ellis Woods Road, 1.8 mi west of Parker Ford and 3 mi upstream from mouth.	12.0	1970-76 1978-83	10- 5-83	3.4
		NESHAMINY CREEK BASIN				
Ironworks Creek	Mill Creek	Lat 40°11'54", long 75°15'41", Montgomery County, at lower Holland Road Bridge 300 ft east of Bustleton Pike and 1.3 mi south of Richboro.	3.69	1981b 1982-83	10- 4-83	.23
					1- 9-84	4.6
					2- 6-84	4.4
					5-23-84	3.1
					8-23-84	9.0

b Operated as a low-flow partial-record station.

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1983

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	CIFIC CON-DUCTANCE (UMHOS)	PH (STANDARD UNITS)	TEMPERATURE, AIR (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	NESS, NONCARBONATE (MG/L CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03 LONG 075 37 10)											
OCT 21...	1400	25	159	6.7	15.0	10.0	<1.0	9.9	61	23	16
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11 LONG 075 34 45)											
OCT 20...	1430	.33	--	7.2	12.0	12.0	2.2	9.7	97	41	25
MAR 23...	1430	4.7	210	7.0	--	7.0	--	--	66	44	16
APR 26...	1445	3.0	220	8.9	--	19.0	--	--	--	--	--
MAY 22...	1515	2.0	230	7.8	--	23.0	--	--	--	--	--
JUN 13...	0945	2.3	250	7.2	--	19.0	--	--	79	41	20
JUL 17...	1015	3.0	230	7.3	--	19.0	--	--	--	--	--
AUG 21...	1425	1.3	230	7.5	--	20.0	--	--	--	-	--
SEP 18...	1420	.63	235	7.5	--	16.0	--	--	78	40	20
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14 LONG 075 41 50)											
OCT 18...	1330	9.5	125	7.4	16.5	13.0	1.8	9.5	47	9	12
01472140 - SOUTH BRIDGE FRENCH CREEK COVENTRYVILLE, PA. (LAT 40 09 18 LONG 075 42 52)											
OCT 18...	1500	4.7	181	8.1	18.0	14.5	<1.0	10.4	70	20	19
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17 LONG 075 38 25)											
OCT 20...	1015	30	147	7.1	10.0	11.0	1.9	9.6	56	16	15
014721612 - FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA (LAT 40 08 10 LONG 075 30 41)											
OCT 20...	1230	52	185	7.8	13.0	13.0	1.5	10.5	67	17	18
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43 LONG 075 39 14)											
OCT 17...	1415	1.1	222	7.6	16.0	15.0	4.0	9.4	83	35	22
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22 LONG 075 37 50)											
OCT 18...	1045	2.6	195	7.5	18.0	13.0	1.0	8.6	81	27	23
MAR 23...	1520	9.1	180	7.3	--	7.0	--	--	58	31	15
APR 26...	1340	15	195	8.1	--	17.0	--	--	--	--	--
MAY 22...	1330	9.9	190	7.6	--	20.0	--	--	--	--	--
JUN 13...	1340	8.6	195	7.3	--	22.0	--	--	71	27	19
JUL 17...	0900	9.1	195	7.2	--	19.0	--	--	--	--	--
AUG 21...	1115	5.9	200	7.4	--	16.0	--	--	--	--	--
SEP 18...	1305	3.0	200	7.6	--	14.0	--	--	76	29	21
014721854 - PICKERING CREEK AT MERLIN, PA (LAT 40 06 25 LONG 075 35 34)											
OCT 17...	1150	8.4	195	7.8	14.5	11.0	<1.0	10.7	80	25	22
014721884 - PICKERING CREEK AT CHARLESTOWN RAILROAD BRIDGE AT CHARLESTOWN, PA (LAT 40 05 57 LONG 075 33 20)											
OCT 17...	0850	11	185	8.1	16.0	13.0	<1.0	10.5	81	27	22

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03 LONG 075 37 10)											
OCT 21...	5.2	8.8	1.8	38	22	8.1	17	112	110	1.6	.040
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11 LONG 075 34 45)											
OCT 20...	8.3	15	8.9	56	37	27	17	203	190	3.0	.050
MAR 23...	.4	11	2.1	22	21	26	--	139	--	5.0	.020
APR 26...	--	--	--	28	--	15	--	152	--	4.2	.050
MAY 22...	--	--	--	34	--	19	--	153	--	4.4	.080
JUN 13...	7.1	13	2.1	38	30	21	--	180	--	4.7	.130
JUL 17...	--	--	--	40	--	17	--	180	--	4.8	.040
AUG 21...	--	--	--	35	--	17	--	150	--	4.7	.020
SEP 18...	6.8	12	2.3	38	24	19	--	148	--	--	<.010
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14 LONG 075 41 50)											
OCT 18...	4.2	6.1	1.6	38	14	8.2	16	100	89	.81	.050
01472140 - SOUTH BRIDGE FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18 LONG 075 42 52)											
OCT 18...	5.4	7.0	2.2	50	17	12	20	137	110	--	<.010
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17 LONG 075 38 25)											
OCT 20...	4.6	6.6	2.4	40	19	11	17	111	110	1.2	.030
014721612 - FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA (LAT 40 08 10 LONG 075 30 41)											
OCT 20...	5.4	9.2	2.5	50	22	14	16	134	120	1.2	.030
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43 LONG 075 39 14)											
OCT 17...	6.8	7.1	2.8	48	15	24	22	167	140	2.6	.060
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22 LONG 075 37 50)											
OCT 18...	5.8	6.7	2.2	54	16	17	19	148	130	2.3	.040
MAR 23...	5.1	7.6	1.5	28	17	17	--	120	--	--	<.010
APR 26...	--	--	--	36	--	15	--	127	--	2.7	.020
MAY 22...	--	--	--	39	--	15	--	127	--	2.5	.020
JUN 13...	5.6	6.7	1.6	44	23	15	--	136	--	2.7	.010
JUL 17...	--	--	--	46	--	16	--	154	--	2.8	.010
AUG 21...	--	--	--	46	--	14	--	130	--	--	<.010
SEP 18...	5.7	6.7	1.6	47	15	16	--	132	--	--	<.010
014721854 - PICKERING CREEK AT MERLIN, PA (LAT 40 06 25 LONG 075 35 34)											
OCT 17...	6.1	7.1	1.9	55	17	17	18	141	130	1.7	.050
014721884 - PICKERING CREEK AT CHARLESTOWN RAILROAD BRIDGE AT CHARLESTOWN, PA (LAT 40 05 57 LONG 075 33 20)											
OCT 17...	6.3	7.6	2.0	54	18	19	18	132	130	1.6	.040

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03 LONG 075 37 10)										
OCT 21...	1.6	<.010	--	.40	2.0	.060	.050	.050	30	--
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11 LONG 075 34 45)										
OCT 20...	3.0	.090	1.2	1.3	4.3	.270	.220	.210	20	--
MAR 23...	5.0	<.010	--	--	--	--	--	.030	<100	--
APR 26...	4.2	.150	--	--	--	--	--	.090	--	--
MAY 22...	4.5	.180	--	--	--	--	--	.090	--	--
JUN 13...	4.8	.190	--	--	--	--	--	.160	--	--
JUL 17...	4.8	.090	--	--	--	--	--	.080	--	--
AUG 21...	4.7	.010	--	--	--	--	--	.070	--	--
SEP 18...	4.3	.040	--	--	--	--	--	.120	--	--
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14 LONG 075 41 50)										
OCT 18...	.86	.120	.48	.60	1.5	.020	.020	.010	20	--
01472140 - SOUTH BRIDGE FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18 LONG 075 42 52)										
OCT 18...	2.8	.020	.28	.30	3.1	.040	.040	<.010	10	--
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17 LONG 075 38 25)										
OCT 20...	1.2	<.010	--	.60	1.8	.040	.020	.020	10	--
014721612 - FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA (LAT 40 08 10 LONG 075 30 41)										
OCT 20...	1.2	<.010	--	.50	1.7	.030	.020	.010	20	<1
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43 LONG 075 39 14)										
OCT 17...	2.7	.130	.87	1.0	3.7	.050	.030	.040	10	--
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22 LONG 075 37 50)										
OCT 18...	2.3	.110	.49	.60	2.9	.020	.010	.010	10	--
MAR 23...	2.7	<.010	--	--	--	--	--	<.010	200	--
APR 26...	2.7	.110	--	--	--	--	--	.060	--	--
MAY 22...	2.5	.110	--	--	--	--	--	<.010	--	--
JUN 13...	2.7	.070	--	--	--	--	--	.020	--	--
JUL 17...	2.8	.160	--	--	--	--	--	.030	--	--
AUG 21...	2.9	<.010	--	--	--	--	--	<.010	--	--
SEP 18...	2.8	.010	--	--	--	--	--	.020	--	--
014721854 - PICKERING CREEK AT MERLIN, PA (LAT 40 06 25 LONG 075 35 34)										
OCT 17...	1.7	.170	.13	.30	2.0	.010	.010	<.010	10	--
014721884 - PICKERING CREEK AT CHARLESTOWN ROAD BRIDGE AT CHARLESTOWN, PA (LAT 40 05 57 LONG 075 33 20)										
OCT 17...	1.6	.120	.28	.40	2.0	.010	.020	<.010	20	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
01472080 - PIGEON CREEK NEAR PARKER FORD, PA. (LAT 40 12 03 LONG 075 37 10)										
OCT 21...	--	--	--	87	--	20	--	--	--	--
01472109 - STONY RUN NEAR SPRING CITY, PA. (LAT 40 10 11 LONG 075 34 45)										
OCT 20...	--	--	--	89	--	54	--	--	--	--
MAR 23...	--	--	--	50	--	71	--	--	--	--
APR 26...	--	--	--	--	--	--	--	--	--	--
MAY 22...	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	61	--	110	--	--	--	--
JUL 17...	--	--	--	--	--	--	--	--	--	--
AUG 21...	--	--	--	--	--	--	--	--	--	--
SEP 18...	--	--	--	20	--	20	--	--	--	--
01472138 - FRENCH CREEK NEAR COVENTRYVILLE, PA. (LAT 40 10 14 LONG 075 41 50)										
OCT 18...	--	--	--	150	--	20	--	--	--	--
01472140 - SOUTH BRIDGE FRENCH CREEK AT COVENTRYVILLE, PA. (LAT 40 09 18 LONG 075 42 52)										
OCT 18...	--	--	--	72	--	10	--	--	--	--
01472154 - FRENCH CREEK NEAR PUGHTOWN, PA. (LAT 40 09 17 LONG 075 38 25)										
OCT 20...	--	--	--	120	--	16	--	--	--	--
014721612 - FRENCH CREEK AT RAILROAD BRIDGE AT PHOENIXVILLE, PA (LAT 40 08 10 LONG 075 30 41)										
OCT 20...	<1	<1	2	83	2	21	<.1	1	<1	<3
01472170 - PICKERING CREEK NEAR EAGLE, PA. (LAT 40 04 43 LONG 075 39 14)										
OCT 17...	--	--	--	170	--	56	--	--	--	--
01472174 - PICKERING CREEK NEAR CHESTER SPRINGS, PA. (LAT 40 05 22 LONG 075 37 50)										
OCT 18...	--	--	--	78	--	18	--	--	--	--
MAR 23...	--	--	--	51	--	18	--	--	--	--
APR 26...	--	--	--	--	--	--	--	--	--	--
MAY 22...	--	--	--	--	--	--	--	--	--	--
JUN 13...	--	--	--	68	--	18	--	--	--	--
JUL 17...	--	--	--	--	--	--	--	--	--	--
AUG 21...	--	--	--	--	--	--	--	--	--	--
SEP 18...	--	--	--	50	--	13	--	--	--	--
014721854 - PICKERING CREEK AT MERLIN, PA (LAT 40 06 25 LONG 075 35 34)										
OCT 17...	--	--	--	76	--	15	--	--	--	--
014721884 - PICKERING CREEK AT CHARLESTOWN ROAD BRIDGE AT CHARLESTOWN, PA (LAT 40 05 57 LONG 075 33 20)										
OCT 17...	--	--	--	92	--	21	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

01472190 - PICKERING CREEK NEAR PHOENIXVILLE, PA. (LAT 40 06 33 LONG 075 31 42)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
18...	0830	--	202	7.5	15.0	12.5	<1.0	9.9	85	37	23

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
OCT											
18...	6.7	8.5	2.0	48	19	19	18	148	130	1.5	.040

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)
OCT										
18...	1.5	.140	.26	.40	1.9	.020	.010	<.010	10	--

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT										
18...	--	--	--	53	--	6	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
01473167 - LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00 LONG 075 28 22)											
OCT 21...	0900	4.0	503	7.8	7.5	9.0	<1.0	10.7	230	26	59
MAR 20...	1300	19	490	8.2	--	12.0	--	--	180	46	44
APR 26...	0945	17	475	8.5	--	12.0	--	--	--	--	--
MAY 22...	0940	15	455	7.9	--	15.0	--	--	--	--	--
JUN 12...	1045	14	480	8.2	--	16.0	--	--	190	50	48
JUL 17...	1320	9.9	475	8.1	--	20.0	--	--	--	--	--
AUG 21...	1205	7.0	500	8.0	--	16.0	--	--	--	--	--
SEP 18...	1025	4.8	410	7.9	--	11.5	--	--	210	56	55
01473168 - VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11 LONG 075 28 25)											
OCT 21...	1100	3.2	538	8.2	10.5	10.0	4.0	10.8	240	29	47
01475840 - CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54 LONG 075 27 38)											
OCT 27...	1300	4.2	159	7.4	11.0	9.0	<1.0	11.0	--	--	14
01476430 - RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28 LONG 075 32 40)											
OCT 27...	1045	3.1	196	6.7	10.5	9.0	4.2	10.5	70	30	15
01476435 - RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52 LONG 075 31 02)											
OCT 27...	0900	11	187	7.2	9.0	7.0	1.9	10.7	67	21	14
01476790 - EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49 LONG 075 35 40)											
OCT 26...	0900	.80	198	6.6	10.0	11.0	<1.0	9.2	59	39	12
01476830 - EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)											
OCT 26...	1100	1.9	235	7.1	21.0	12.0	1.2	10.7	100	37	23
01476835 - EAST BRANCH CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 26 LONG 075 32 30)											
OCT 26...	1300	5.3	216	7.1	13.0	14.0	4.6	7.9	85	--	20
01476848 - EAST BRANCH CHESTER CREEK BELOW GOOSE CREEK NEAR WEST CHESTER, PA (LAT 39 55 45 LONG 075 32 00)											
OCT 26...	1445	18	560	5.7	13.0	14.0	4.6	7.9	130	100	31
01478120 - EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42 LONG 075 46 52)											
NOV 01...	1330	6.3	303	8.1	15.5	8.5	1.2	12.5	140	59	34
01478190 - EAST BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)											
NOV 02...	0830	4.7	192	8.0	12.0	8.0	1.3	10.5	74	32	17
01478220 - WEST BRANCH WHITE CLAY CREEK NEAR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)											
NOV 02...	1015	4.3	144	7.3	15.0	7.0	1.6	12.0	49	25	12

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
01473167 - LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00 LONG 075 28 22)											
OCT 21...	19	24	2.2	200	34	47	7.5	342	320	2.4	.040
MAR 20...	16	25	1.7	130	33	47	--	272	--	--	<.010
APR 26...	--	--	--	140	--	41	--	326	--	2.7	.010
MAY 22...	--	--	--	138	--	40	--	358	--	2.6	.020
JUN 12...	16	21	1.7	136	36	39	--	322	--	2.6	.060
JUL 17...	--	--	--	148	--	42	--	339	--	--	<.010
AUG 21...	--	--	--	156	--	41	--	354	--	--	<.010
SEP 18...	18	21	1.9	156	33	40	--	290	--	--	<.010
01473168 - VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11 LONG 075 28 25)											
OCT 21...	30	25	2.9	212	31	42	7.7	325	320	1.8	.050
01475840 - CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54 LONG 075 27 38) NITRO- NITRO-											
OCT 27...	7.8	7.0	1.8	42	18	12	17	113	--	--	<.010
01476430 - RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28 LONG 075 32 40)											
OCT 27...	8.0	12	2.2	40	20	19	10	126	110	--	<.010
01476435 - RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52 LONG 075 31 02)											
OCT 27...	7.8	10	2.2	46	19	16	14	123	110	--	<.010
01476790 - EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49 LONG 075 35 40)											
OCT 26...	7.0	14	1.3	20	14	28	7.9	127	120	5.0	.090
01476830 - EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)											
OCT , 1983 26...	11	8.8	3.2	66	25	17	18	161	150	--	<.010
01476835 - EAST BRANCH CHESTER CREEK AT WESTTOWN SCHOOL, PA. (LAT 39 56 26 LONG 075 32 30)											
OCT , 1983 26...	8.6	11	3.5	52	26	19	13	150	--	2.6	0.01
01476848 - EAST BRANCH CHESTER CREEK BELOW GOOSE CREEK NEAR WEST CHESTER, PA (LAT 39 55 45 LONG 075 32 00)											
OCT , 1983 26...	12	43	15	26	58	66	18	352	360	20	.520
01478120 - EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42 LONG 075 46 52)											
NOV , 1983 01...	14	7.6	2.5	84	27	16	14	198	190	4.8	.010
01478190 - EAST BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)											
NOV , 1983 02...	7.6	9.0	3.1	42	16	15	14	134	130	5.1	.110
01478220 - WEST BRANCH WHITE CLAY CREEK NEAR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)											
NOV , 1983 02...	4.7	7.6	3.0	24	16	13	13	102	99	3.5	.010

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR October 1983 TO SEPTEMBER 1984

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)
01473167 - LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00 LONG 075 28 22)										
OCT 21...	2.4	<.010	--	.30	2.7	.030	.020	.020	10	1
MAR 20...	2.7	<.010	--	--	--	--	--	<.010	200	--
APR 26...	2.7	.290	--	--	--	--	--	.050	--	--
MAY 22...	2.6	.330	--	--	--	--	--	<.010	--	--
JUN 12...	2.7	.020	--	--	--	--	--	<.010	--	--
JUL 17...	2.6	.050	--	--	--	--	--	.010	--	--
AUG 21...	2.8	.030	--	--	--	--	--	.020	--	--
SEP 18...	2.7	.080	--	--	--	--	--	.030	--	--
01473168 - VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11 LONG 075 28 25)										
OCT 21...	1.8	<.010	--	.20	2.0	.030	.010	.010	<10	1
01475840 - CRUM CREEK AT WHITEHORSE, PA (LAT 39 59 54 LONG 075 27 38)										
OCT 27...	1.4	<.010	--	.90	2.3	.030	.010	<.010	<10	--
01476430 - RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28 LONG 075 32 40)										
OCT 27...	2.4	<.010	--	1.2	3.6	.130	.100	.110	10	--
01476435 - RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52 LONG 075 31 02)										
OCT 27...	2.4	<.010	--	.50	2.9	.070	.050	.050	10	--
01476790 - EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49 LONG 075 35 40)										
OCT 26...	5.1	<.010	--	.40	5.5	.040	.040	.040	<10	--
01476830 - EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)										
OCT 26...	2.2	<.010	--	1.3	3.5	.060	.030	.050	10	--
01476835 - EAST BRANCH CHESTER CR AT WESTTOWN SCHOOL, PA. (LAT 39 56 26 LONG 075 32 30)										
OCT , 1983 26...	2.6	.01	--	.6	3.2	.49	.42	.45	10	1
01476848 - EAST BRANCH CHESTER CREEK BELOW GOOSE CREEK WEST CHESTER, PA (LAT 39 55 45 LONG 075 32 00)										
OCT , 1983 26...	21	5.10	.60	5.7	27	2.60	2.40	2.40	20	1
01478120 - EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42 LONG 075 46 52)										
NOV , 1983 01...	4.8	.060	.34	.40	5.2	.030	.030	.010	<10	--
01478190 - EAST BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)										
NOV , 1983 02...	5.2	.390	.41	.80	6.0	.280	.260	.270	<10	--
01478220 - W BR WHITE CLAY CR NR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)										
NOV , 1983 02...	3.5	.030	.47	.50	4.0	.030	.020	<.010	<10	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
01473167 - LITTLE VALLEY CREEK AT HOWELLVILLE, PA. (LAT 40 04 00 LONG 075 28 22)										
OCT 21...	<1	<1	1	9	3	5	.1	1	<1	9
MAR 20...	--	--	--	<3	--	6	--	--	--	--
APR 26...	--	--	--	--	--	--	--	--	--	--
MAY 22...	--	--	--	--	--	--	--	--	--	--
JUN 12...	--	--	--	6	--	8	--	--	--	--
JUL 17...	--	--	--	--	--	--	--	--	--	--
AUG 21...	--	--	--	--	--	--	--	--	--	--
SEP 18...	--	--	--	<3	--	3	--	--	--	--
01473168 - VALLEY CREEK NEAR VALLEY FORGE, PA. (LAT 40 04 11 LONG 075 28 25)										
OCT 21...	<1	1	1	7	2	13	.1	1	<1	11
01475840 - CRUM CREEK AT WHITEHORSE, PA. (LAT 39 59 54 LONG 075 27 38)										
OCT 27...	--	--	--	91	--	13	--	--	--	--
01476430 - RIDLEY CREEK AT GOSHENVILLE, PA. (LAT 39 59 28 LONG 075 32 40)										
OCT , 1983 27...	--	--	--	82	--	28	--	--	--	--
01476435 - RIDLEY CREEK AT DUTTON MILL NEAR WEST CHESTER, PA. (LAT 39 58 52 LONG 075 31 02)										
OCT , 1983 27...	--	--	--	98	--	42	--	--	--	--
01476790 - EAST BRANCH CHESTER CREEK AT GREEN HILL, PA. (LAT 39 59 49 LONG 075 35 40)										
OCT , 1983 26...	--	--	--	23	--	18	--	--	--	--
01476830 - EAST BRANCH CHESTER CREEK AT MILLTOWN, PA. (LAT 39 58 21 LONG 075 32 57)										
OCT , 1983 26...	--	--	--	110	--	49	--	--	--	--
01476835 - EAST BRANCH CHESTER CR AT WESTTOWN SCHOOL, PA. (LAT 39 56 26 LONG 075 32 30)										
OCT , 1983 26...	<1	<1	4	66	2	69	.1	2	<1	6
01476848 - EAST BRANCH CHESTER CREEK BELOW GOOSE CREEK NEAR W CHESTER, PA (LAT 39 49 42 LONG 075 32 00)										
OCT , 1983 26...	<1	<1	9	65	2	130	110	6	<1	32
01478120 - EAST BRANCH WHITE CLAY CREEK AT AVONDALE, PA. (LAT 39 49 42 LONG 075 46 52)										
NOV , 1983 01...	--	--	--	21	--	12	--	--	--	--
01478190 - EAST BRANCH WHITE CLAY CREEK AT WICKERTON, PA. (LAT 39 47 44 LONG 075 49 27)										
NOV , 1983 02...	--	--	--	62	--	32	--	--	--	--
01478220 - WEST BRANCH WHITE CLAY CREEK NEAR CHESTERVILLE, PA. (LAT 39 45 56 LONG 075 47 47)										
NOV , 1983 02...	--	--	--	52	--	22	--	--	--	--

ANALYSES OF COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13 LONG 075 43 33)											
NOV 01...	0815	5.7	345	7.3	--	6.5	1.6	11.0	170	77	37
01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)											
NOV 01...	1100	4.6	273	8.1	14.0	8.0	1.4	11.8	120	34	30

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13 LONG 075 43 33)											
NOV 01...	18	8.6	3.2	90	26	16	16	215	180	--	<.010
01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)											
NOV 01...	11	12	4.7	86	37	21	17	187	200	4.1	.020

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC DIS-SOLVED (UG/L AS AS)
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13 LONG 075 43 33)										
NOV 01...	5.0	.060	1.0	1.1	6.1	.050	.040	.020	<10	1
01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)										
NOV 01...	4.1	.070	.73	.80	4.9	.100	.080	.080	10	1

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13 LONG 075 43 33)										
NOV 01...	<1	<1	1	40	<1	31	.2	<1	<1	5
01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)										
NOV 01...	<1	<1	2	55	1	27	.2	1	<1	5

01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13 LONG 075 43 33)

DATE	TIME	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 01...	0815	<1.0	<10	260	--	15	1.6	2.5	<1.0	<1.0	<.1

01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)

DATE	TIME	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 01...	1100	<1.0	<10	54	17	16	1.0	<1.0	<1.0	<1.0	<.1

01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13 LONG 075 43 33)

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 01...	5600	--	<1.0	<1.0	<1.0	<.1	88	<.1	<.1	<1.0	<.1

01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)

DATE	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG)	METHYL TRITHION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)
NOV 01...		--	<1.0	<1.0	<1.0	<.1	<1.0	<.1	<.1	<1.0	<.1

01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13 LONG 075 43 33)

DATE	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	ACENAPHTHENE BOT.MAT (UG/KG)	ACENAPHTHYLENE BOT.MAT (UG/KG)	ANTHRACENE BOT.MAT (UG/KG)	BIS (2-CHLOROISOPROPYL) ETHER BOT.MAT (UG/KG)	BIS (2-CHLOROETHOXY) METHANE BOT.MAT (UG/KG)	BIS (2-CHLOROETHYL) ETHER BOT.MAT (UG/KG)	BIS(2-ETHYL HEXYL) PHTHALATE BOT.MAT (UG/KG(	BENZIDINE BOT.MAT (UG/KG)
NOV 01...	<10.0	<10	<.1	--	--	83.0	--	--	--	310	<100

01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)

DATE	PERTHANE IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	ACENAPHTHENE BOT.MAT (UG/KG)	ACENAPHTHYLENE BOT.MAT (UG/KG)	ANTHRACENE BOT.MAT (UG/KG)	BIS (2-CHLOROISOPROPYL) ETHER BOT.MAT (UG/KG)	BIS (2-CHLOROETHOXY) METHANE BOT.MAT (UG/KG)	BIS (2-CHLOROETHYL) ETHER BOT.MAT (UG/KG)	BIS(2-ETHYL HEXYL) PHTHALATE BOT.MAT (UG/KG(	BENZIDINE BOT.MAT (UG/KG)
NOV 01...	<10.0	<10	<.1	--	--	--	<40.0	--	<20.0	--	--

01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13 LONG 075 43 33)

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE BOT.MAT (UG/KG)	BENZO B FLUORANTHENE BOT.MAT (UG/KG)	BENZO K FLUORANTHENE BOT.MAT (UG/KG)	BENZOGHI PERYLENE1,12-BENZOPERYLENE BOT.MAT (UG/KG)	BENZO-A-PYRENE BOT.MAT (UG/KG)	4-BROMOPHENYL PHENYL ETHER BOT.MAT (UG/KG)	N-BUTYL BENZYL PHTHALATE BOT.MAT (UG/KG)	PARACHLOROMETA CRESOL BOT.MAT (UG/KG)	2-CHLOROPHENOL BOT.MAT (UG/KG)	2-CHLORONAPHTHALENE BOT.MAT (UG/KG)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)
NOV 01...	360	<30.0	<30.0	<100	250	<50.0	<30.0	--	--	--	<40.0

01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)

DATE	BENZO A ANTHRACENE1,2-BENZANTHRACENE BOT.MAT (UG/KG)	BENZO B FLUORANTHENE BOT.MAT (UG/KG)	BENZO K FLUORANTHENE BOT.MAT (UG/KG)	BENZOGHI PERYLENE1,12-BENZOPERYLENE BOT.MAT (UG/KG)	BENZO-A-PYRENE BOT.MAT (UG/KG)	4-BROMOPHENYL PHENYL ETHER BOT.MAT (UG/KG)	N-BUTYL BENZYL PHTHALATE BOT.MAT (UG/KG)	PARACHLOROMETA CRESOL BOT.MAT (UG/KG)	2-CHLOROPHENOL BOT.MAT (UG/KG)	2-CHLORONAPHTHALENE BOT.MAT (UG/KG)	4-CHLOROPHENYL PHENYL ETHER TOTAL (UG/L)
NOV 01...	--	--	--	--	--	--	--	--	<20.0	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	CHRYSENE BOT.MAT (UG/KG)	OCTYL PHTHALATE BOT.MAT (UG/KG)	-DIBENZ-ANTHRACENE BOT.MAT (UG/KG)	2,4-DICHLOROPHENOL BOT.MAT (UG/KG)	DIETHYL PHTHALATE BOT.MAT (UG/KG)	2,4-DP, IN BOTTOM MAT. (UG/KG)	METHYL PHTHALATE BOT.MAT (UG/KG)	DINITRO-ORTHOCRESOL BOT.MAT (UG/KG)	DINITROPHENOL BOT.MAT (UG/KG)
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13 LONG 075 43 33)										
NOV 01...	0815	400	<30.0	<80.0	--	<20.0	--	--	<100	--
01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)										
NOV 01...	1100	--	--	--	--	--	--	--	--	--

DATE	DI-N-BUTYL PHTHALATE BOT.MAT (UG/KG)	FLUORANTHENE BOT.MAT (UG/KG)	FLUORENE BOT.MAT (UG/L)	HEXACHLOROBENZENE TOT. IN BOTTOM MATL. (UG/KG)	HEXACHLOROBUTADIENE BOT.MAT (UG/KG)	HEXACHLOROETHANE BOT.MAT (UG/KG)	HEXACHLOROCYCLOPENTADIENE BOT.MAT (UG/KG)	INDENO (1,2,3-CD) PYRENE BOT.MAT (UG/KG)	ISOPHORONE BOT.MAT (UG/KG)	NAPHTHALENE BOT.MAT (UG/KG)
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13 LONG 075 43 33)										
NOV 01...	450	580	<20.0	--	--	--	--	<100	--	--
01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)										
NOV 01...	--	--	--	--	--	--	--	--	--	--

DATE	N-NITROSODIMETHYLAMINE BOT.MAT (UG/KG)	N-NITROSODIPHENYLAMINE BOT.MAT (UG/KG)	N-NITROSODI-N-PROPYLAMINE BOT.MAT (UG/KG)	NITROBENZENE BOT.MAT (UG/KG)	PENTACHLOROPHENOL BOT.MAT (UG/KG)	PHENANTHRENE BOT.MAT (UG/KG)	PHENOL (C6H5OH) BOT.MAT (UG/KG)	PYRENE BOT.MAT (UG/KG)	2,3,7,8 TETRACHLORODIBENZO-P-DIOXIN BOT.MAT (UG/KG)	2,4,6-TRICHLOROPHENOL BOT.MAT (UG/KG)
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13 LONG 075 43 33)										
NOV 01...	<40.0	<40.0	--	--	<100	310	--	700	--	--
01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)										
NOV 01...	--	--	--	--	--	--	<20.0	--	--	--

DATE	1,2,4-TRICHLOROBENZENE BOT.MAT (UG/KG)	1,2-DICHLOROBENZENE BOT.MAT (UG/KG)	1,3-DICHLOROBENZENE BOT.MAT (UG/KG)	1,4-DICHLOROBENZENE BOT.MAT (UG/KG)	2,4-DINITROTOLUENE BOT.MAT (UG/KG)	2,6-DINITROTOLUENE BOT.MAT (UG/KG)	3,3'-DICHLOROBENZIDINE BOT.MAT (UG/KG)	4-NITROPHENOL BOT.MAT (UG/KG)	
01479680 - WEST BRANCH RED CLAY CREEK AT KENNETT SQUARE, PA (LAT 39 50 13 LONG 075 43 33)									
NOV 01...	--	--	--	--	--	<100	--	<80.0	<70.0
01479800 - EAST BRANCH RED CLAY CREEK NEAR FIVE POINT, PA. (LAT 39 49 11 LONG 075 41 29)									
NOV 01...	--	--	--	--	--	--	--	--	--

ANALYSES OF SSAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE, AIR (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (NTU)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
01480434 - WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA (LAT 39 59 36 LONG 075 49 41)											
NOV 04...	0915	19	198	7.4	6.5	8.5	1.5	12.7	81	33	20
01480632 - BUCK RUN AT DOE RUN, PA. (LAT 39 55 46 LONG 075 49 24)											
OCT 28...	1230	11	214	7.5	17.5	9.0	1.2	11.4	83	35	21
01480632 - DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25 LONG 075 49 42)											
OCT 28...	1345	5.4	131	7.3	14.0	10.5	<1.0	11.5	50	22	12
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)											
OCT 31...	1130	71	245	7.4	7.0	8.0	1.2	11.6	92	40	23
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)											
NOV 03...	0945	3.2	121	8.0	13.5	10.0	2.0	9.3	66	14	17
01480653 - EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48 LONG 075 46 44)											
NOV 03...	1230	7.6	164	6.5	20.0	10.5	1.5	10.2	65	23	17
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33 LONG 075 46 52)											
NOV 03...	1400	2.1	156	6.5	20.0	12.0	1.1	9.3	63	26	18
01480903 - VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA. (LAT 39 59 00 LONG 075 39 55)											
OCT 31...	1345	7.0	377	8.0	14.0	10.0	1.3	12.4	170	89	38
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35 LONG 075 38 54)											
OCT 31...	0945	78	28	7.5	9.0	7.5	2.4	10.8	120	31	28
01481030 - BRANDYWINE CREEK NEAR CHADDS FORD, PA (LAT 39 51 15 LONG 075 35 58)											
OCT 31...	1600	131	252	7.6	5.0	9.0	1.6	11.2	100	38	25
01494900 - EAST BRANCH ELK CREEK AT ELKVIEW, PA. (LAT 39 48 48 LONG 075 54 04)											
NOV 02...	1430	4.7	129	7.1	17.0	11.0	1.5	9.9	42	20	9.4
01494950 - WEST BRANCH ELK CREEK NEAR OXFORD, PA. (LAT 39 46 41 LONG 075 55 27)											
NOV 02...	1300	6.6	141	6.2	22.0	11.0	1.4	11.1	46	28	10

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
01480434 - WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA (LAT 39 59 36 LONG 075 49 41)											
NOV 04...	7.5	7.9	3.5	48	21	17	15	140	130	3.0	.010
01480629 - BUCK RUN AT DOE RUN, PA. (LAT 39 55 46 LONG 075 49 24)											
OCT 28...	7.4	9.2	2.9	48	20	19	9.6	145	120	--	<.010
01480632 - DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25 LONG 075 49 42)											
OCT 28...	4.9	5.0	2.1	28	9.9	11	9.8	92	72	--	<.010
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)											
OCT 31...	8.3	13	4.0	52	25	22	10	153	150	3.8	.040
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)											
NOV 03...	5.8	7.6	2.9	52	18	11	12	120	120	2.8	.030
01480653 - EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48 LONG 075 46 44)											
NOV 03...	5.4	7.3	2.2	42	16	11	16	120	100	--	<.010
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33 LONG 075 46 52)											
NOV 03...	4.5	9.2	1.4	38	9.2	11	26	126	120	3.4	.020
01480903 - VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA. (LAT 39 59 00 LONG 075											
OCT 31...	19	10	2.5	84	55	19	5.4	231	220	3.6	.010
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35 LONG 075 38 54)											
OCT 31...	11	16	3.1	84	31	23	11	188	190	2.9	.050
01481030 - BRANDYWINE CREEK NEAR CHADDS FORD, PA (LAT 39 51 15 LONG 075 35 58)											
OCT 31...	9.5	14	3.6	64	29	21	12	172	170	2.9	.020
01494900 - EAST BRANCH ELK CREEK AT ELKVIEW, PA. (LAT 39 48 48 LONG 075 54 04)											
NOV 02...	4.6	6.6	2.5	22	8.2	12	11	92	88	4.4	.040
01494950 - WEST BRANCH ELK CREEK NEAR OXFORD, PA. (LAT 39 46 41 LONG 075 55 27)											
NOV 02...	5.1	8.3	2.6	18	9.8	15	10	104	94	4.9	.020

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN DISSOLVED (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P)	ALUMINUM, DISSOLVED (UG/L AS AL)	ARSENIC DISSOLVED (UG/L AS AS)
01480434 - WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA (LAT 39 59 36 LONG 075 49 41)										
NOV 04...	3.0	.020	.48	.50	3.5	.050	.040	.020	20	--
01480629 - BUCK RUN AT DOE RUN, PA. (LAT 39 55 46 LONG 075 49 24)										
OCT 28...	4.4	<.010	--	.80	5.2	.100	.090	.080	<10	--
01480632 - DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25 LONG 075 49 42)										
OCT 28...	3.8	<.010	--	.10	3.9	.020	.020	.010	<10	--
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)										
OCT 31...	3.8	.060	.34	.40	4.2	.170	.150	.150	100	1
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)										
NOV 03...	2.8	.130	.67	.80	3.6	.050	.020	<.010	<10	--
01480653 - EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48 LONG 075 46 44)										
NOV 03...	2.9	.060	.44	.50	3.4	.030	.020	<.010	20	--
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33 LONG 075 46 52)										
NOV 03...	3.4	.060	.74	.80	4.2	.140	.130	.120	10	--
01480903 - VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA. (LAT 39 59 00 LONG 075 39 55)										
OCT 31...	3.6	.010	.69	.70	4.3	.100	.100	.080	10	--
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35 LONG 075 38 54)										
OCT 31...	2.9	.310	.39	.70	3.6	.520	.510	.530	20	1
01481030 - BRANDYWINE CREEK NEAR CHADDS FORD, PA (LAT 39 51 15 LONG 075 35 58)										
OCT 31...	2.9	.040	.76	.80	3.7	.300	.290	.250	10	--
01494900 - EAST BRANCH ELK CREEK AT ELKVIEW, PA. (LAT 39 48 48 LONG 075 54 04)										
NOV 02...	4.4	.210	.89	1.1	5.5	.130	.120	.120	<10	<1
01494950 - WEST BRANCH ELK CREEK NEAR OXFORD, PA. (LAT 39 46 41 LONG 075 55 27)										
NOV 02...	4.9	.030	.17	.20	5.1	.130	.110	.110	10	1

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER OCTOBER 1983 TO SEPTEMBER 1984

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
01480434 - WEST BRANCH BRANDYWINE CREEK AT ROCK RUN, PA (LAT 39 59 36 LONG 075 49 41)										
NOV 04...	--	--	--	81	--	20	--	--	--	--
01480629 - BUCK RUN AT DOE RUN, PA. (LAT 39 55 46 LONG 075 49 24)										
OCT 28...	--	--	--	62	--	24	--	--	--	--
01480632 - DOE RUN AT SPRINGDELL, PA. (LAT 39 54 25 LONG 075 49 42)										
OCT 28...	--	--	--	32	--	14	--	--	--	--
01480640 - WEST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 34 LONG 075 39 47)										
OCT 31...	<1	<1	3	81	1	30	.1	4	<1	11
01480648 - EAST BRANCH BRANDYWINE CREEK NEAR CUPOLA, PA. (LAT 40 05 41 LONG 075 51 14)										
NOV 03...	--	--	--	70	--	54	--	--	--	--
01480653 - EAST BRANCH BRANDYWINE CREEK AT GLENMOORE, PA. (LAT 40 05 48 LONG 075 46 44)										
NOV 03...	--	--	--	67	--	25	--	--	--	--
01480656 - INDIAN RUN NEAR SPRINGTON, PA. (LAT 40 04 33 LONG 075 46 52)										
NOV 03...	--	--	--	31	--	4	--	--	--	--
01480903 - VALLEY CREEK AT MULLSTEINS MEADOWS NEAR DOWNINGTOWN, PA (LAT 39 59 00 LONG 075 39 55)										
OCT 31...	--	--	--	16	--	8	--	--	--	--
01480950 - EAST BRANCH BRANDYWINE CREEK AT WAWASET, PA. (LAT 39 55 35 LONG 075 38 54)										
OCT 31...	1	<1	3	74	1	45	<.1	<1	<1	6
01481030 - BRANDYWINE CREEK NEAR CHADDS FORD, PA (LAT 39 51 15 LONG 075 35 58)										
OCT 31...	--	--	--	88	--	47	--	--	--	--
01494900 - EAST BRANCH ELK CREEK AT ELKVIEW, PA. (LAT 39 48 48 LONG 075 54 04)										
NOV 02...	<1	<1	2	58	<1	20	.2	<1	<1	5
01494950 - WEST BRANCH ELK CREEK NEAR OXFORD, PA. (LAT 39 46 41 LONG 075 55 27)										
NOV 02...	1	<1	2	46	<1	17	.7	<1	<1	8

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

Samples collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

LEHIGH RIVER BASIN

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (STAND-ARD UNITS)	TEMPER-ATURE (DEG C)	ALKA-LINITY FIELD (MG/L AS CACO3)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)
403135075363501 - LITTLE LEHIGH CREEK NEAR ZION CHURCH											
SEP 05...	1400	42	270	7.6	15.0	108	.010	3.9	.030	.100	.120
403356075370701 - IRON RUN NEAR UPPER MACUNGIE TOWNSHIP SCHOOL											
SEP 05...	1100	.46	440	8.1	16.5	152	.080	8.1	.090	.060	.030
403223075372001 - SCHAEFER RUN NEAR RT 222 AND OLD BREINIGSVILLE HIGHWAY											
SEP 05...	1140	.46	370	7.8	21.0	154	.030	3.9	.090	.100	.030
403235075345601 - LITTLE LEHIGH CREEK AT KNEPPER'S FARM											
SEP 05...	1500	52	290	7.9	16.0	116	.010	4.6	.060	.080	.070
403136075325601 - SWABIG CREEK AT BROOKSIDE COUNTRY CLUB											
SEP 06...	--	4.8	175	7.8	15.0	60	<.010	1.3	.020	.030	.020
403117075303101 - LIEBERTS CREEK AT EMMAUS COMMUNITY PARK											
SEP 06...	--	2.8	219	7.8	17.0	80	<.010	2.0	.050	.030	.030

BERKS COUNTY

402615075530501. Local number, BE 623.

LOCATION.--Lat 40°26'15", long 75°53'05", Hydrologic Unit 02040203, at Wesner Road, Blandon.
Owner: Maiden Creek Township Water Authority.
AQUIFER.--Dolomite of Leithsville Formation of Early and Middle Cambrian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (20 cm), depth 385 ft (117 m), casing information not available.
DATUM.--Altitude of land-surface datum is 430 ft (131 m). Measuring point: Top of plywood shelf, 1.71 ft (52 cm) above land-surface datum. Prior to Apr. 30, 1981, top of casing, 1.30 ft (40 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--January 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 113.55 ft (34.61 m) below land-surface datum, June 6, 1984; lowest, 140.82 ft (42.92 m) below land-surface datum, Dec. 23, 24, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	136.67	135.27	---	127.68	123.27	122.46	117.20	115.00	117.18	---	121.86
2	---	136.67	135.25	---	127.86	123.30	122.20	117.19	114.40	117.20	---	121.90
3	---	136.68	135.18	---	127.86	123.37	122.03	117.16	114.09	117.16	---	122.01
4	---	136.72	135.05	---	127.86	123.41	121.88	117.13	113.82	117.17	---	122.23
5	---	136.79	134.90	---	128.01	123.20	121.22	117.09	113.73	117.35	---	122.37
6	---	136.85	134.62	---	128.20	123.13	120.68	117.07	113.61	117.39	---	122.50
7	---	136.93	134.43	---	128.44	123.28	120.26	117.04	113.60	117.32	---	122.62
8	---	136.99	134.35	---	128.47	123.29	119.99	116.76	113.63	116.86	---	122.69
9	---	136.98	134.31	---	128.62	123.35	119.51	116.27	113.73	116.27	---	122.70
10	---	136.97	134.20	---	128.66	123.37	118.89	116.24	113.85	115.61	---	122.87
11	---	136.91	134.20	---	128.70	123.59	118.37	116.15	113.95	115.08	---	123.07
12	---	136.99	133.89	---	128.73	123.71	118.12	115.76	114.26	114.74	---	123.35
13		136.99	132.72	---	128.70	123.62	117.89	115.61	114.43	114.73	---	123.41
14	136.33	137.00	131.00	---	128.56	123.70	117.79	115.56	114.63	114.71	---	123.55
15	136.36	137.00	129.76	---	128.25	123.69	117.49	115.54	114.96	114.67	---	123.96
16	136.38	136.76	128.94	---	127.46	123.69	117.27	115.51	115.08	114.64	---	124.13
17	136.38	136.60	---	---	126.55	123.70	117.24	115.49	115.12	114.76	---	124.25
18	136.46	136.60	---	---	125.80	123.62	117.27	115.51	115.18	114.94	---	124.26
19	136.48	136.50	---	---	125.34	123.50	117.32	115.50	115.43	115.15	---	124.33
20	136.52	136.47	---	---	124.78	123.50	117.43	115.56	115.60	115.26	---	124.57
21	136.57	136.47	---	---	124.54	123.40	117.42	115.77	115.75	---	120.09	124.94
22	136.55	136.37	---	---	124.55	123.19	117.39	115.82	115.93	---	120.12	125.05
23	136.51	136.34	---	---	124.33	123.23	117.35	115.96	116.15	---	120.37	125.12
24	136.47	136.28	---	---	123.95	123.23	117.32	116.11	116.29	---	120.61	125.20
25	136.40	136.13	---	---	123.82	123.01	117.29	116.07	116.42	---	120.78	125.28
26	136.36	136.05	---	---	123.83	122.93	117.27	116.22	116.51	---	120.87	125.60
27	136.46	135.86	---	126.82	123.74	122.94	117.24	116.55	116.68	---	121.04	125.66
28	136.46	135.74	---	126.98	123.05	122.84	117.21	116.55	116.93	---	121.17	125.65
29	136.66	135.46	---	127.11	123.21	122.58	117.23	116.53	117.01	---	121.36	125.70
30	136.66	135.37	---	127.24	---	122.65	117.21	116.32	117.13	---	121.50	125.79
31	136.65	---	---	127.49	---	122.64	---	115.61	---	---	121.70	---
MAX	136.66	137.00	135.27	127.49	128.73	123.71	122.46	117.20	117.13	117.39	121.70	125.79
MIN	136.10	134.57	128.39	126.65	122.76	122.10	117.09	115.02	113.55	114.52	120.71	121.70
MEAN	136.45	136.49	133.42	127.04	126.40	123.20	118.51	116.14	115.00	115.81	120.79	123.81

WTR YR 1984 MEAN 123.74 HIGH 113.55 LOW 137.00

402643075150501. Local number, BK 929.

LOCATION.--Lat 40°26'43", long 75°15'05", Hydrologic Unit 02040105, at Nockamixon State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Brunswick Formation of Late Triassic age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 116 ft (35.4 m), cased to 27 ft (8.2 m), open hole.
DATUM.--Altitude of land-surface datum is 490 ft (149 m). Measuring point: Top of plywood shelf, 1.30 ft (40.m) above land-surface datum. Prior to Mar. 17, 1980, to of casing, 1.05 ft (32 cm) above land-surface datum.
PERIOD OF RECORD.--November 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 40.11 ft (12.22 m) below land-surface datum, Apr. 15, 1980; lowest, 59.75 ft (18.21 m) below land-surface datum, Nov. 26, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.71	48.84	46.16	44.36	---	---	41.74	41.29	40.79	42.38	42.30	43.89
2	48.58	48.75	46.15	44.25	---	---	41.69	41.37	40.58	42.39	42.34	43.91
3	48.64	48.56	45.92	43.98	---	---	41.74	41.29	40.64	42.30	42.32	43.87
4	48.59	48.36	45.83	43.81	---	---	41.64	40.95	40.75	42.16	42.33	44.04
5	48.64	48.36	45.59	43.61	---	---	40.98	41.33	40.86	41.91	42.35	44.24
6	48.94	48.43	45.53	43.49	---	42.29	40.78	41.36	40.87	41.93	42.39	44.38
7	49.13	48.59	45.34	43.88	---	42.50	41.15	41.32	40.92	41.82	42.33	44.51
8	49.13	48.66	45.48	44.02	---	42.55	41.38	41.18	40.96	41.80	42.48	44.60
9	49.20	48.61	45.52	44.27	---	42.65	41.44	40.91	40.97	41.72	42.69	44.54
10	49.29	48.52	45.49	44.13	---	42.65	41.25	41.11	41.23	41.60	42.70	44.36
11	49.29	48.00	45.52	44.38	---	42.55	41.03	41.14	41.28	41.36	42.73	44.33
12	49.16	48.44	45.23	44.64	---	42.83	41.06	40.99	41.43	41.38	42.84	44.57
13	48.94	48.50	44.61	44.63	---	42.79	41.15	41.07	41.36	41.50	42.87	44.59
14	49.09	48.54	44.42	44.34	---	42.51	41.17	40.99	41.44	41.58	42.83	44.48
15	49.24	48.53	44.49	44.42	---	42.51	41.02	41.05	41.81	41.54	42.83	44.72
16	49.29	48.01	44.80	44.32	---	42.20	40.90	41.19	41.97	41.36	42.84	44.96
17	49.22	48.10	44.89	44.51	---	42.17	40.91	41.27	41.91	41.43	42.85	45.09
18	49.18	48.19	44.89	44.49	---	42.07	41.05	41.27	41.73	41.52	42.89	45.08
19	49.34	48.08	44.67	44.50	---	41.87	41.23	41.10	41.91	41.79	42.90	44.96
20	49.40	47.91	44.91	44.75	---	41.69	41.23	41.10	42.09	41.84	43.20	44.71
21	49.42	47.50	44.93	44.88	---	41.59	41.36	41.31	42.18	41.89	43.31	45.11
22	49.37	47.50	44.59	---	---	41.46	41.41	41.39	42.25	41.96	43.31	45.35
23	49.14	47.43	44.27	---	---	41.84	41.13	41.33	42.34	41.97	43.15	45.34
24	48.97	47.24	43.90	---	---	41.87	40.66	41.49	42.35	41.84	43.39	45.31
25	48.97	46.86	44.74	---	---	41.74	41.11	41.48	42.27	42.01	43.59	45.29
26	48.77	46.92	45.17	---	---	41.67	41.29	41.52	42.28	42.06	43.64	45.58
27	48.80	46.80	44.68	---	---	41.72	41.45	41.69	42.29	41.97	43.59	45.67
28	48.81	46.66	44.45	---	---	41.67	41.56	41.69	42.40	42.21	43.53	45.66
29	48.99	46.17	44.20	---	---	41.26	41.54	41.33	42.45	42.28	43.55	45.53
30	49.04	46.18	44.55	---	---	41.67	41.39	41.15	42.42	42.52	43.55	45.60
31	48.88	---	44.51	---	---	41.75	---	41.06	---	42.37	43.66	---
MAX	49.42	48.84	46.16	44.88	---	42.83	41.74	41.69	42.45	42.52	43.66	45.67
MIN	48.42	45.96	43.65	43.35	---	40.73	40.51	40.67	40.42	41.11	42.22	43.68
MEAN	48.94	47.80	44.84	44.18	---	41.95	41.13	41.15	41.56	41.81	42.89	44.71

WTR YR 1984 MEAN 44.00 HIGH 40.42 LOW 49.42

410123075425401. Local number, CB 104.

LOCATION.--Lat 41°01'23", long 75°42'54", Hydrologic Unit 02040106, at Hickory Run State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Shale of Lower Member of Mauch Chunk Formation of Late Mississippian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 125 ft (38.1 m), cased to 20 ft (6.1 m), open hole.
DATUM.--Altitude of land-surface datum is 1,305 ft (398 m). Measuring point: Top of plywood shelf, 3.12 ft (95 cm) above land-surface datum. Prior to May 28, 1980, top of casing, 3.00 ft (91 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--September 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.44 ft (5.62 m) below land-surface datum, Apr. 17, 1983; lowest, 90.58 ft (27.61 m) below land-surface datum, Jan. 31, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80.04	83.50	46.26	33.18	---	29.85	39.76	36.51	22.18	51.89	42.77	64.06
2	80.20	83.67	43.19	33.85	---	30.62	39.76	37.20	22.96	50.44	43.67	64.35
3	80.34	83.60	41.07	34.74	57.30	31.26	39.14	37.76	23.95	47.76	44.56	64.73
4	80.53	83.70	40.46	35.60	57.41	---	37.38	37.77	25.21	45.95	45.49	65.23
5	80.71	83.76	39.68	36.62	57.41	33.17	34.81	35.69	26.52	44.97	46.37	65.61
6	80.88	83.84	38.95	37.63	57.11	34.35	27.85	33.70	27.83	---	47.13	66.10
7	81.03	83.95	37.38	38.79	---	35.58	21.82	33.01	---	---	47.93	66.55
8	81.12	84.01	35.37	39.81	---	36.13	21.41	32.90	---	44.70	---	66.86
9	81.35	84.09	33.94	40.86	55.29	---	22.02	32.95	---	42.36	---	67.23
10	81.51	84.14	33.47	41.63	54.98	---	22.80	32.73	---	41.43	---	67.61
11	81.64	84.27	33.58	42.63	54.54	---	23.88	32.42	---	41.17	---	68.06
12	81.79	84.34	33.71	---	54.35	---	25.06	32.89	35.91	41.56	---	---
13	81.94	84.35	32.94	---	54.12	---	26.35	33.39	37.27	41.59	---	---
14	82.10	84.48	25.84	45.02	53.12	---	27.50	34.29	38.70	42.01	---	---
15	82.20	84.50	20.99	45.80	50.54	---	28.60	35.16	40.08	42.42	---	---
16	82.36	84.52	21.03	46.42	39.35	---	29.36	36.12	41.27	42.99	---	---
17	82.47	84.44	21.50	47.31	31.48	---	29.50	37.03	42.28	43.64	---	---
18	82.63	83.85	---	47.88	28.37	---	29.50	37.80	43.28	43.71	---	---
19	82.78	83.22	---	48.74	27.30	---	29.45	38.63	44.27	39.58	---	---
20	82.86	82.69	---	49.50	26.53	---	29.78	---	45.16	35.42	---	---
21	82.96	82.13	26.02	50.33	26.04	44.88	30.27	---	46.01	33.87	---	---
[illegible]	83.05	80.69	26.93	51.31	26.31	44.07	30.67	---	46.83	33.65	---	---
23	83.14	77.87	27.28	51.92	26.67	41.83	31.15	---	47.69	34.00	---	---
24	83.21	75.28	27.63	52.38	27.00	40.16	32.11	---	48.48	34.62	---	---
25	83.22	72.85	28.53	53.27	26.63	39.10	33.06	---	49.16	35.47	---	---
26	83.24	69.95	29.50	---	26.87	38.48	33.47	---	49.77	36.42	---	---
27	83.31	65.30	30.51	---	27.41	38.52	33.89	---	50.42	37.48	---	---
28	83.35	60.70	31.30	---	27.99	38.63	34.46	---	51.16	38.69	---	---
29	83.43	56.20	32.02	---	29.07	39.01	35.06	---	51.80	39.72	---	---
30	83.48	51.12	32.24	---	---	39.42	35.70	31.00	52.09	40.77	63.15	---
31	83.49	---	32.41	---	---	39.71	---	24.26	---	41.77	63.65	---
MAX	83.49	84.52	46.26	53.27	57.30	44.88	39.76	38.63	52.09	51.89	63.65	68.06
MIN	79.87	46.45	20.39	32.41	25.81	29.08	20.99	22.20	22.04	33.54	41.79	63.66
MEAN	82.08	78.44	31.66	43.28	39.49	37.11	29.97	33.88	39.94	40.50	49.00	65.82

WTR YR 1984 MEAN 47.63 HIGH 20.99 LOW 84.52

395450075485401. Local number, CH 10.

LOCATION.--Lat 39°54'50", long 75°48'54", Hydrologic Unit 02040205, at intersection of Routes 82 and 841, Doe Run. Owner: Robert J. Kleberg, Jr.
AQUIFER.--Cockeysville Marble of Paleozoic age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (15 cm), depth 34 ft (10.4 m), casing information not available.
DATUM.--Altitude of land-surface datum is 300 ft (91 m). Measuring point: Top of plywood shelf, 5.23 ft (1.59 m) above land-surface datum. Prior to June 24, 1981, top of casing, 1.00 ft (30 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--August 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 8.28 ft (2.52 m) below land-surface datum, Mar. 30, 1958; lowest, 16.22 ft (4.94 m) below land-surface datum, Nov. 3, 1963.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.51	14.37	12.22	10.54	11.99	10.02	9.07	10.28	9.16	10.39	9.80	11.54
2	14.51	14.39	12.27	10.71	11.99	10.15	9.20	10.33	9.35	10.31	9.89	11.57
3	14.53	14.41	12.31	10.80	11.99	10.25	9.34	10.36	9.45	10.36	9.97	11.61
4	14.54	14.42	12.31	10.85	11.99	10.35	9.36	10.13	9.59	10.43	10.07	11.60
5	14.54	14.44	11.76	10.98	11.89	10.39	9.16	9.02	9.71	10.55	10.17	11.61
6	14.55	14.46	11.61	11.06	11.89	10.26	8.47	9.08	9.81	10.48	10.23	11.67
7	14.57	14.49	11.44	11.18	11.89	10.34	8.70	9.13	9.91	10.37	10.33	11.71
8	14.58	14.52	11.42	11.23	11.89	10.44	8.87	9.12	10.00	9.49	10.42	11.75
9	14.59	14.53	11.50	11.36	11.89	10.55	8.98	8.94	10.11	9.59	10.54	11.78
10	14.61	14.54	11.58	11.41	11.89	10.61	9.10	9.08	10.20	9.64	10.59	11.81
11	14.61	14.52	11.65	11.42	11.89	10.69	9.26	9.17	10.31	9.68	10.67	11.80
12	14.61	14.40	11.65	11.51	11.60	10.78	9.39	9.27	10.39	9.77	10.73	11.85
13	14.60	14.33	10.61	11.54	11.51	10.78	9.51	9.34	10.47	9.90	10.62	11.88
14	14.56	14.30	9.43	11.60	11.44	10.45	9.58	9.51	10.48	10.01	10.58	11.92
15	14.56	14.29	9.63	11.65	11.13	9.83	9.63	9.63	10.58	10.09	10.67	11.92
16	14.58	14.09	9.82	11.69	9.85	9.57	9.59	9.75	10.62	10.18	10.75	11.94
17	14.59	13.72	9.97	11.81	9.85	9.66	9.62	9.85	10.64	10.07	10.81	11.98
18	14.61	13.63	10.03	11.86	9.93	9.75	9.71	9.88	10.60	10.03	10.87	12.00
19	14.61	13.63	10.11	---	9.96	---	9.78	9.94	10.15	10.15	10.90	12.01
20	14.59	13.64	10.32	---	10.09	---	9.87	10.05	10.05	10.22	10.84	12.06
21	14.58	13.62	10.47	---	10.23	---	9.99	10.14	10.15	10.24	10.92	12.13
22	14.58	13.38	10.47	---	10.32	9.71	10.03	10.20	10.24	9.65	10.96	12.16
23	14.58	13.32	9.50	---	10.37	9.86	10.00	10.24	10.33	9.67	10.99	12.18
24	14.53	13.33	9.71	12.08	9.93	9.93	9.87	10.26	10.36	9.78	11.07	12.22
25	14.34	13.32	9.96	12.10	9.56	9.94	10.00	10.32	10.01	9.94	11.14	12.25
26	14.26	12.78	10.15	12.11	9.71	10.03	10.09	10.42	10.05	10.04	11.20	12.29
27	14.21	12.64	10.29	12.08	9.78	10.10	10.17	10.51	10.15	10.04	11.24	12.33
28	14.23	12.62	10.38	11.99	9.73	10.10	10.26	10.52	10.28	9.41	11.31	12.34
29	14.29	12.43	10.07	11.97	9.88	9.55	10.25	10.36	10.36	9.50	11.36	12.32
30	14.31	12.19	10.30	11.97	---	8.77	10.16	9.57	10.39	9.59	11.40	12.31
31	14.34	---	10.38	11.99	---	8.93	---	9.03	---	9.69	11.48	---
MAX	14.61	14.54	12.31	12.11	11.99	10.78	10.26	10.52	10.64	10.55	11.48	12.34
MIN	14.20	12.15	9.37	10.38	9.41	9.49	8.36	8.87	9.03	9.33	9.70	11.48
MEAN	14.49	13.78	10.65	11.52	10.82	9.98	9.49	9.70	10.07	9.88	10.69	11.93

WTR YR 1984 MEAN 11.08 HIGH 8.36 LOW 14.61

395040075341801. Local number, DE 3.

LOCATION.--Lat 39°50'40", long 75°34'18", Hydrologic Unit 02040205, at Birmingham Township.
Owner: Mrs. Hope W. Ebert.
AQUIFER.--Oligoclase-mica schist of Wissahickon Formation (age uncertain, Early Paleozoic to Precambrian).
WELL CHARACTERISTICS.--Dug unused water-table well, diameter 42 in (1.07 m), depth 18.5 ft (5.7 m), (formerly reported as 22 ft), cased with stone.
DATUM.--Altitude of land-surface datum is 280 ft (85 m). Measuring point: Top of concrete base, 1.80 ft (55 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.90 ft (2.41 m) below land-surface datum, Aug. 22, 1955; lowest measured, dry many times since 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.74	>18.50	16.06	10.92	13.49	11.43	10.84	12.21	12.62	14.03	13.53	14.89
2	17.78	>18.50	15.88	11.04	13.55	11.45	10.74	12.28	12.50	14.08	13.52	14.94
3	17.81	>18.50	15.67	11.13	13.56	11.51	10.73	12.31	12.44	14.12	13.51	14.96
4	17.84	>18.50	15.46	11.21	13.53	11.59	10.75	12.27	12.40	14.16	13.51	15.00
5	17.87	>18.50	15.23	11.31	13.49	11.62	10.44	12.32	12.39	14.20	13.54	15.06
6	17.92	>18.50	14.98	11.39	13.57	11.62	9.68	12.35	12.37	14.24	13.57	15.10
7	17.95	>18.50	14.72	11.52	13.62	11.74	9.35	12.33	12.40	14.25	13.59	15.15
8	17.98	>18.50	14.54	11.67	13.69	11.86	9.28	12.28	12.44	14.26	13.63	15.19
9	18.01	>18.50	14.33	11.81	13.68	11.92	9.39	12.23	12.49	14.29	13.70	15.21
10	18.04	>18.50	14.10	11.92	13.74	12.04	9.52	12.20	12.58	14.30	13.77	15.25
11	18.08	>18.50	13.95	11.97	13.74	12.08	9.72	12.19	12.66	14.29	13.81	15.28
12	18.10	>18.50	13.73	12.13	13.77	12.25	9.98	12.13	12.78	14.25	13.87	15.32
13	18.13	>18.50	12.94	12.23	13.80	12.30	10.21	12.15	12.85	14.28	13.94	15.37
14	18.15	>18.50	11.80	12.28	13.77	12.12	10.44	12.11	12.94	14.31	14.00	15.39
15	18.20	>18.50	10.50	12.39	13.60	12.07	10.63	12.16	13.05	14.31	14.05	15.42
16	18.22	18.47	9.98	12.45	13.23	11.86	10.75	12.20	13.15	14.28	14.11	15.49
17	18.25	18.24	9.81	12.55	13.07	11.68	10.88	12.28	13.21	14.29	14.17	15.52
18	18.28	18.14	9.79	12.63	12.87	11.55	11.07	12.33	13.25	14.27	14.22	15.55
19	18.27	18.06	9.82	12.67	12.70	11.44	11.25	12.36	13.32	14.31	14.27	15.57
20	18.32	17.98	10.03	12.80	12.49	11.40	11.39	12.42	13.41	14.32	14.34	15.60
21	18.35	17.87	10.23	12.88	12.40	11.36	11.50	12.50	13.49	14.27	14.40	15.64
22	18.38	17.74	10.26	12.96	12.36	11.39	11.62	12.59	13.56	14.04	14.45	15.70
23	18.39	17.61	10.07	13.02	12.28	11.46	11.66	12.64	13.63	13.99	14.48	15.73
24	18.35	17.49	10.01	13.05	12.02	11.58	11.70	12.73	13.69	13.92	14.53	15.75
25	18.36	17.32	10.12	13.08	11.83	11.61	11.80	12.79	13.64	13.86	14.59	15.79
26	18.40	17.13	10.23	13.17	11.79	11.66	11.93	12.85	13.73	13.80	14.64	15.81
27	18.42	16.92	10.32	13.19	11.67	11.78	12.00	12.96	13.80	13.70	14.68	15.88
28	>18.50	16.69	10.42	13.25	11.44	11.83	12.09	13.02	13.86	13.65	14.72	15.88
29	>18.50	16.47	10.46	13.28	11.39	11.59	12.15	13.07	13.92	13.62	14.76	15.92
30	>18.50	16.28	10.67	13.35	---	11.31	12.17	12.85	13.97	13.58	14.80	15.96
31	>18.50	---	10.81	13.38	---	11.05	---	12.62	---	13.55	14.84	---
MAX	18.13	17.49	12.16	12.34	12.97	11.68	10.86	12.44	13.08	14.09	14.11	15.44
MIN	>18.50	>18.50	16.06	13.38	13.80	12.30	12.17	13.07	13.97	14.32	14.84	15.96
MEAN	17.74	16.28	9.79	10.92	11.39	11.05	9.28	12.11	12.37	13.55	13.51	14.89

WTR YR 1984 MEAN 13.70 HIGH 9.28 LOW >18.50

395512075293701, Local number, DE 723.

LOCATION.--Lat 39°55'12", long 75°29'37", Hydrologic Unit 02040202, at Glen Mills School, in Thornbury Township. Owner: Glen Mills School.

AQUIFER.--Felsic Hornblende bearing Gneiss of Precambian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 300 ft (91.4 m), casing information not available.

DATUM.--Altitude of land-surface datum is 280 ft (85 m). Measuring point: Top of plywood shelf, 2.66 ft (81 cm) above land-surface datum. Prior to May 11, 1984, top of plywood shelf, 1.20 ft (37 cm) above land-surface datum.

REMARKS.--Data published for both 1983 and 1984 water years.

PERIOD OF RECORD.--April 1983 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.78 ft (0.85 m) below land-surface datum, April 25, 1983; lowest, 9.95 ft (3.03 m) below land-surface datum, Aug. 3, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	4.14	5.25	6.51	7.33	8.14
2	---	---	---	---	---	---	---	4.31	5.41	6.55	7.35	8.14
3	---	---	---	---	---	---	---	4.42	5.46	6.56	9.95	8.15
4	---	---	---	---	---	---	---	4.53	5.51	6.57	8.59	8.15
5	---	---	---	---	---	---	---	4.68	5.61	6.60	8.37	8.18
6	---	---	---	---	---	---	---	4.79	5.65	6.64	8.30	8.19
7	---	---	---	---	---	---	---	4.85	5.73	6.69	8.25	8.20
8	---	---	---	---	---	---	5.29	4.94	5.80	6.72	8.21	8.22
9	---	---	---	---	---	---	5.14	5.03	5.86	6.74	8.21	8.22
10	---	---	---	---	---	---	3.97	5.09	5.87	6.75	8.19	8.23
11	---	---	---	---	---	---	4.21	5.19	5.98	6.80	8.18	8.27
12	---	---	---	---	---	---	4.43	5.23	5.98	6.80	8.01	8.27
13	---	---	---	---	---	---	4.57	5.26	6.00	6.85	8.02	8.21
14	---	---	---	---	---	---	4.61	5.33	6.03	6.87	8.00	8.18
15	---	---	---	---	---	---	4.61	5.37	6.10	6.89	8.02	8.21
16	---	---	---	---	---	---	3.08	5.38	6.15	6.94	8.06	8.21
17	---	---	---	---	---	---	3.29	5.20	6.16	6.95	8.06	8.21
18	---	---	---	---	---	---	3.38	5.38	6.19	7.05	8.05	8.21
19	---	---	---	---	---	---	3.51	5.45	6.20	7.04	8.04	8.24
20	---	---	---	---	---	---	3.50	5.56	6.22	7.07	---	8.25
21	---	---	---	---	---	---	3.63	5.59	6.22	7.08	---	8.27
22	---	---	---	---	---	---	3.81	5.58	6.25	7.13	---	8.10
23	---	---	---	---	---	---	3.97	4.87	6.35	7.16	8.10	8.10
24	---	---	---	---	---	---	3.97	4.75	6.35	7.16	8.09	8.11
25	---	---	---	---	---	---	3.21	4.96	6.40	7.18	8.09	8.11
26	---	---	---	---	---	---	3.28	5.06	6.44	7.22	8.12	8.11
27	---	---	---	---	---	---	3.48	4.99	6.46	7.23	8.14	8.10
28	---	---	---	---	---	---	3.68	5.14	6.48	7.26	8.15	8.11
29	---	---	---	---	---	---	3.85	5.20	6.44	7.28	8.12	8.14
30	---	---	---	---	---	---	4.00	5.20	6.48	7.34	8.11	8.14
31	---	---	---	---	---	---		5.05		7.34	8.12	---
MEAN	---	---	---	---	---	---	---	5.05	6.03	6.93	---	8.18
MAX	---	---	---	---	---	---	---	5.59	6.48	7.34	---	8.27
MIN	---	---	---	---	---	---	---	4.14	5.25	6.51	---	8.10

395512075293701, Local number, DE 723.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.15	7.85	7.16	5.63	6.58	5.99	4.81	5.55	4.47	6.16	6.15	---
2	8.14	7.85	7.21	5.69	6.61	6.10	4.93	5.61	4.73	6.15	6.19	---
3	8.13	7.87	7.26	5.75	6.61	6.12	5.03	5.64	4.92	6.20	---	---
4	8.14	7.87	7.27	5.81	6.03	6.12	5.09	5.63	5.09	6.24	---	---
5	8.14	7.92	6.73	5.83	5.97	6.02	5.03	5.44	5.21	6.28	---	---
6	8.18	7.95	6.75	5.93	6.19	6.07	2.80	5.54	5.31	6.19	---	---
7	8.19	7.98	6.83	6.02	6.39	6.09	3.12	5.63	5.41	6.13	---	---
8	8.19	7.99	6.92	6.09	6.47	6.19	3.36	5.62	5.50	6.13	---	---
9	8.20	8.00	6.99	6.12	6.58	6.24	3.55	5.33	5.58	6.23	---	---
10	8.24	8.00	7.07	6.11	6.62	6.32	3.72	5.44	5.64	6.26	---	---
11	8.22	7.85	7.10	6.16	6.59	6.35	3.89	5.61	5.70	6.26	---	---
12	8.20	7.64	7.10	6.22	6.55	6.36	4.08	5.69	5.79	6.24	---	---
13	8.13	7.71	5.50	6.22	6.57	5.57	4.27	5.72	5.84	6.23	---	---
14	8.09	7.76	4.57	6.27	6.59	5.19	4.41	5.80	5.84	6.19	---	---
15	8.14	7.80	4.96	6.31	6.40	5.15	4.47	5.86	5.89	6.13	---	---
16	8.16	6.92	5.27	6.34	5.47	5.30	4.50	5.89	5.96	6.07	---	---
17	8.16	7.01	5.51	6.41	5.62	5.40	4.49	5.92	5.98	5.81	---	---
18	8.17	7.14	5.67	6.40	5.73	5.48	4.68	5.96	5.96	5.95	---	---
19	8.17	7.26	5.85	6.47	5.78	5.58	4.80	5.98	5.79	6.09	---	---
20	8.11	7.36	5.92	6.58	5.90	5.59	4.93	6.04	5.85	6.20	---	---
21	8.12	7.37	5.97	6.61	---	---	5.05	6.08	5.96	6.21	---	---
22	8.15	7.10	5.97	6.62	6.16	5.59	5.10	6.12	6.02	6.00	---	---
23	8.14	7.25	4.74	6.63	5.81	5.72	5.09	6.13	6.06	6.08	---	---
24	7.24	7.33	4.97	6.64	5.64	5.78	5.02	6.17	6.09	6.19	---	---
25	7.22	7.30	5.13	6.53	5.81	5.80	5.14	6.19	5.72	6.26	---	---
26	7.39	6.87	5.27	6.35	5.86	5.81	5.24	6.24	5.93	6.30	---	---
27	7.53	7.05	5.42	6.10	5.87	5.86	5.34	6.27	6.02	6.31	---	---
28	7.60	7.10	5.45	6.15	5.82	5.86	5.43	6.27	6.09	5.75	---	---
29	7.74	6.89	5.24	6.30	5.91	5.31	5.43	6.27	6.14	5.91	---	---
30	7.79	7.04	5.41	6.35	---	4.48	5.44	4.42	6.16	6.01	---	---
31	7.82	---	5.52	6.49	---	4.69	---	4.14	---	6.08	---	---
MEAN	8.00	7.23	5.56	6.23	6.15	5.74	4.61	5.75	5.69	6.14	---	---
MAX	8.24	8.00	7.27	6.63	6.62	6.36	5.44	6.27	6.16	6.31	---	---
MIN	7.22	6.87	4.57	5.63	5.47	4.48	2.80	4.14	4.47	5.75	---	---

WTR YR 1984 MEAN 6.11 HIGH 2.80 LOW 8.24

402207076180801. Local number, LB 372.

LOCATION.--Lat 40°22'07", long 76°18'08", Hydrologic Unit 02040203, at Myerstown.
Owner: Kohl Brothers, Inc.

AQUIFER.--Dolomite of Ontelaunee Formation of Middle Ordovician age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 80 ft (24.4 m), casing information not available, open hole.

DATUM.--Altitude of land-surface datum is 444 ft (135 m). Measuring point: Top of plywood shelf, 2.70 ft (82 cm) above land-surface datum. Prior to Apr. 22, 1981, top of casing, 3.50 ft (1.07 m) above land-surface datum.

REMARKS.--None.

PERIOD OF RECORD.--July 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.02 ft (1.23 m) below land-surface datum, Jan. 27, 1976; lowest, 11.32 ft (3.45 m) below land-surface datum, Jan. 23, 30, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.30	10.58	8.95	6.95	8.17	6.98	6.45	7.16	6.25	7.03	7.03	7.76
2	10.23	10.59	9.00	7.04	8.22	7.07	6.57	7.18	6.37	7.04	7.05	7.82
3	10.31	10.61	9.03	7.16	8.26	7.13	6.65	7.20	6.44	7.11	7.08	7.85
4	10.39	10.65	9.03	7.23	7.91	7.22	6.67	6.41	6.55	7.17	7.12	7.77
5	10.42	10.65	8.67	7.31	7.44	7.26	6.18	6.69	6.61	7.23	7.14	7.88
6	10.40	10.62	8.68	7.38	7.52	7.20	5.84	6.79	6.69	6.07	7.21	7.96
7	10.41	10.69	8.19	7.42	7.66	7.30	6.11	6.87	6.75	5.47	7.25	8.02
8	10.41	10.73	8.27	7.49	7.77	7.36	6.29	6.88	6.82	5.96	7.42	8.05
9	10.39	10.75	8.34	7.58	7.83	7.43	6.40	6.54	6.87	6.22	7.46	8.09
10	10.45	10.75	8.40	7.63	7.88	7.46	6.48	6.65	6.93	6.33	7.39	8.15
11	10.50	10.49	8.47	7.69	7.83	7.51	6.52	6.71	7.04	5.98	7.35	8.19
12	10.50	10.38	8.51	7.76	7.43	7.58	6.58	6.75	7.10	6.23	7.34	8.21
13	10.32	10.43	5.55	7.79	7.42	7.62	6.61	6.80	7.16	6.35	7.37	8.25
14	10.32	10.57	5.56	7.83	7.41	7.64	6.61	6.88	7.19	6.40	7.40	8.29
15	10.36	10.59	6.06	7.86	6.14	7.61	6.54	6.97	7.23	6.44	7.44	8.30
16	10.38	9.33	6.34	7.94	6.47	7.48	6.55	7.04	7.24	6.52	7.47	8.34
17	10.46	9.69	6.49	8.00	6.62	7.45	6.65	7.10	7.26	6.58	7.50	8.41
18	10.53	9.86	6.59	8.04	6.72	7.42	6.71	7.16	7.10	6.59	7.51	8.45
19	10.33	9.93	6.74	8.10	6.80	7.41	6.74	7.16	6.82	6.46	7.52	8.50
20	10.37	9.97	6.85	8.15	6.91	7.43	6.79	7.19	6.98	6.56	7.51	8.56
21	10.45	9.44	6.93	8.17	7.03	7.43	6.86	7.26	7.07	6.57	7.54	8.59
22	10.46	9.62	6.93	8.20	7.12	7.32	6.91	7.31	7.15	6.53	7.58	8.67
23	10.46	9.72	6.50	8.25	7.18	7.36	6.88	7.33	7.20	6.61	7.59	8.71
24	9.82	9.72	6.67	8.26	6.58	7.36	6.88	7.29	7.21	6.65	7.62	8.71
25	10.14	9.43	6.81	8.12	6.57	7.35	6.95	7.35	6.79	6.72	7.65	8.69
26	10.29	8.88	6.91	8.03	6.71	7.42	7.00	7.38	6.96	6.78	7.68	8.73
27	10.40	9.01	7.02	7.87	6.81	7.46	7.06	7.41	7.04	6.78	7.75	8.76
28	10.45	9.03	7.06	7.81	6.81	7.46	7.08	7.42	7.11	6.74	7.79	8.76
29	10.50	8.80	6.49	7.89	6.86	6.68	7.04	7.07	7.17	6.83	7.83	8.80
30	10.52	8.87	6.74	7.99	---	6.57	7.10	5.66	7.17	6.92	7.88	8.83
31	10.57	---	6.85	8.09	---	6.34	---	6.04	---	6.97	7.68	---
MAX	10.57	10.75	9.03	8.26	8.26	7.64	7.10	7.42	7.26	7.23	7.88	8.83
MIN	9.24	8.64	4.40	6.86	5.99	6.27	5.44	4.93	6.06	4.91	6.97	7.58
MEAN	10.32	9.92	7.21	7.74	7.16	7.25	6.59	6.84	6.86	6.47	7.42	8.30

WTR YR 1984 MEAN 7.67 HIGH 4.40 LOW 10.75

403429075392401. Local number, LE 644.

LOCATION.--Lat 40°34'29", long 75°39'24", Hydrologic Unit 02040106, at Haafsville.
Owner: Charles J. Haaf.
AQUIFER.--Beekmantown Group of Middle Ordovician age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 10 in (25 cm), depth 184 ft (56.1 m), cased to 63 ft (19.2 m), open hole.
DATUM.--Altitude of land-surface datum is 470 ft (143 m). Measuring point: Top of plywood shelf, 2.65 ft (81 cm) above land-surface datum. Prior to Mar. 18, 1981, top of plywood cover, 1.45 ft (44 cm) above land-surface datum.
REMARKS.--Water-quality records for 1973-75 are available in files of district office.
PERIOD OF RECORD.--January 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 36.65 ft (11.17 m) below land-surface datum, June 27, 1972; lowest, 93.42 ft (28.47 m) below land-surface datum, Feb. 6, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67.49	69.80	62.68	45.40	50.41	44.43	43.82	40.46	37.43	40.66	38.65	43.89
2	67.47	69.89	62.50	45.37	50.63	44.52	43.24	40.60	37.12	40.61	38.86	43.98
3	67.86	70.04	62.08	45.64	50.73	44.53	43.05	40.71	37.03	40.76	38.96	44.16
4	68.25	70.15	61.90	45.72	50.72	44.48	42.87	40.47	37.18	40.85	39.04	44.53
5	68.36	70.15	61.19	45.92	50.14	44.37	42.36	39.57	37.37	41.02	39.08	44.85
6	68.71	70.21	60.73	46.02	49.90	44.46	40.14	39.37	37.52	40.81	39.13	45.17
7	68.87	70.49	60.13	46.18	50.15	44.53	38.95	39.33	37.67	39.92	39.32	45.45
8	68.79	70.83	59.56	46.32	50.23	44.57	38.45	39.27	37.77	37.80	39.52	45.53
9	68.78	70.94	59.25	46.51	50.34	44.77	38.24	39.21	37.77	37.15	39.76	45.65
10	69.16	70.93	58.84	46.65	50.52	44.74	38.24	39.30	37.83	37.11	39.89	45.98
11	69.43	70.97	58.58	47.01	50.52	44.72	38.19	39.34	38.17	37.09	39.83	46.31
12	69.50	70.80	58.32	47.31	50.35	44.86	38.34	39.34	38.41	37.18	39.81	46.69
13	69.58	70.48	56.74	47.45	50.18	44.91	38.60	39.38	38.61	37.40	40.07	46.94
14	69.77	70.57	51.84	47.48	50.13	45.20	38.66	39.53	38.84	37.57	40.29	47.05
15	69.73	70.65	48.47	47.61	49.90	45.21	38.61	39.72	39.11	37.66	40.54	47.20
16	69.69	70.42	47.04	47.92	48.35	45.19	38.53	39.88	39.15	37.64	40.70	47.37
17	69.96	69.58	46.43	48.37	47.04	45.18	38.69	40.05	39.20	37.67	40.88	47.71
18	70.28	69.40	45.95	48.43	46.37	44.97	38.85	40.14	39.31	37.65	40.94	47.99
19	70.33	69.17	45.77	48.85	45.83	44.87	38.99	40.05	39.60	37.62	40.98	48.27
20	70.35	68.83	46.02	49.11	45.27	44.91	38.92	40.14	39.81	37.68	41.48	48.54
21	70.45	68.55	46.03	49.19	45.22	44.89	38.81	40.26	40.06	37.64	41.77	48.96
22	70.42	68.41	45.94	49.33	45.35	44.74	38.82	40.38	40.29	37.63	41.95	49.18
23	70.29	68.31	45.58	49.64	45.36	44.76	38.78	40.52	40.41	37.72	42.17	49.17
24	70.05	68.17	45.12	49.81	45.19	44.66	39.07	40.66	40.48	37.96	42.47	49.32
25	69.52	67.43	45.04	49.91	44.83	44.46	39.39	40.75	40.24	38.17	42.55	49.69
26	69.41	66.48	45.35	49.96	44.57	44.57	39.63	40.76	40.17	38.31	42.70	50.15
27	69.34	65.57	45.58	49.85	44.47	44.68	39.84	40.83	40.30	38.31	42.99	50.36
28	69.42	64.92	45.62	49.66	44.30	44.67	39.92	40.80	40.52	38.29	43.17	50.44
29	69.26	64.27	45.36	49.49	44.30	44.38	39.94	40.79	40.67	38.28	43.42	50.47
30	69.29	63.45	45.40	49.65	---	44.37	40.12	39.37	40.71	38.32	43.64	50.57
31	69.52	---	45.36	50.13	---	44.27	---	37.97	---	38.46	43.77	---
MAX	70.45	70.97	62.68	50.13	50.73	45.21	43.82	40.83	40.71	41.02	43.77	50.57
MIN	67.40	62.73	44.92	45.24	43.98	43.86	38.06	37.46	36.89	36.91	38.48	43.79
MEAN	69.20	68.80	51.76	47.80	47.79	44.62	39.51	39.83	38.87	38.29	40.81	47.26

WTR YR 1984 MEAN 47.87 HIGH 36.89 LOW 70.97

403226075343001. Local number, LE 860.

LOCATION.--Lat 40°32'26", long 75°34'30", Hydrologic Unit 02040106, at Lower Macungie Township.
Owner: Paul Knepper.
AQUIFER.--Dolomite of Allentown Formation of Late Cambrian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 100 ft (30.5 m), cased to 58 ft (17.7 m), open hole.
DATUM.--Altitude of land-surface datum is 358 ft (109 m). Measuring point: Top of plywood shelf, 2.95 ft (90 cm) above land-surface datum. Prior to Mar. 18, 1981, top of casing, 2.00 ft (61 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--June 1969 to current year (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.01 ft (3 mm) below land-surface datum, July 7, 1984; lowest 12.07 ft (3.68 m) below land-surface datum, Dec. 18, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		7.04	4.88	2.72	3.91	2.80	2.80	2.86	1.35	2.55	2.47	3.53
2		7.07	4.90	2.79	3.94	2.87	2.68	2.89	1.58	2.44	2.51	3.55
3		7.09	4.98	2.82	3.94	2.94	2.63	2.91	1.74	2.56	2.53	3.57
4		7.16	4.98	2.87	3.68	2.97	2.64	2.69	1.89	2.63	2.59	3.56
5		7.21	4.60	2.89	3.02	2.97	2.43	2.10	2.01	2.69	2.61	3.49
6		7.25	4.48	2.94	3.21	2.92	1.08	2.25	2.05	2.69	2.55	3.59
7		7.32	4.37	3.01	3.41	2.99	1.20	2.30	2.15	2.05	2.59	3.65
8		7.36	4.41	3.10	3.51	3.04	1.37	2.30	2.22	.74	2.63	3.70
9		7.41	4.46	3.16	3.61	3.12	1.51	2.29	2.29	1.13	2.68	3.74
10		7.41	4.50	3.18	3.65	3.14	1.62	2.40	2.35	1.35	2.71	3.76
11		7.37	4.52	3.27	3.62	3.21	1.74	2.43	2.45	1.45	2.74	3.80
12		7.30	4.52	3.32	3.25	3.27	1.85	2.50	2.51	---	2.77	3.87
13		7.37	3.19	3.34	3.27	3.27	1.95	2.53	2.57	---	2.79	3.90
14	7.10	7.43	1.10	3.39	3.27	3.27	2.00	2.61	2.57	---	2.81	3.93
15	7.16	7.44	1.06	3.41	3.16	3.27	2.00	2.67	2.65	---	2.87	3.99
16	7.21	7.09	1.41	3.44	2.03	3.23	2.00	2.73	2.69	---	2.89	4.05
17	7.23	6.43	1.74	3.51	2.05	3.17	2.01	2.78	2.70	---	2.91	4.10
18	7.26	6.55	1.89	3.51	2.26	3.15	2.12	2.79	2.68	---	2.96	4.14
19	7.26	6.62	2.11	3.57	2.37	3.14	2.21	2.80	2.61	---	2.97	4.18
20	7.18	6.66	2.30	3.73	2.52	3.11	2.32	2.86	2.70	2.09	3.04	4.24
21	7.24	6.59	2.39	3.77	2.66	3.11	2.43	2.77	2.75	2.14	3.09	4.29
22	7.26	6.24	2.39	3.80	2.77	3.02	2.47	2.80	2.81	2.19	3.09	4.32
23	7.27	6.31	2.01	3.82	2.79	3.11	2.47	2.83	2.85	2.24	3.09	4.38
24	7.10	6.32	2.24	3.82	2.76	3.14	2.48	2.83	2.87	2.31	3.16	4.40
25	6.44	6.31	2.44	3.76	2.51	3.14	2.60	2.89	2.80	2.38	3.20	4.42
26	6.55	5.68	2.56	3.71	2.63	3.18	2.67	2.93	2.06	2.40	3.25	4.50
27	6.67	5.53	2.64	3.65	2.70	3.20	2.73	2.93	2.27	2.41	3.29	4.54
27	6.67	5.53	2.64	3.65	2.70	3.20	2.73	2.93	2.27	2.41	3.29	4.54
28	6.72	5.53	2.66	3.64	2.70	3.20	2.78	2.93	2.42	2.20	3.35	4.56
29	6.86	5.32	2.26	3.71	2.68	3.04	2.78	2.88	2.49	2.31	3.39	4.57
30	6.92	4.86	2.51	3.75	---	2.99	2.79	.99	2.55	2.37	3.43	4.59
31	6.98	---	2.60	3.84	---	2.98	---	1.10	---	2.43	3.46	---
MAX	7.27	7.44	4.98	3.84	3.94	3.27	2.80	2.93	2.87	2.69	3.46	4.59
MIN	6.39	4.80	.66	2.60	1.79	2.69	.95	.88	1.12	.01	2.43	3.37
MEAN	6.97	6.64	3.01	3.37	2.93	3.07	2.14	2.49	2.32	2.04	2.89	4.00

WTR YR 1984 MEAN 3.49 HIGH 0.01 LOW 7.44

411223075234901. Local number, MC 190.

LOCATION.--Lat 41°12'23", long 75°23'49", Hydrologic Unit 02040106, at Tobyhanna State Park.
   Owner: U.S. Geological Survey.
AQUIFER.--Sandstone of Catskill Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 98 ft (29.9 m), cased to 59 ft (18.0), open hole.
DATUM.--Altitude of land-surface datum is 1,990 ft (607 m). Measuring point: Top of plywood shelf, 2.96 ft (90 cm) above land surface datum. Prior to Mar. 28, 1980, top of plywood cover, 2.57 ft (78 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.83 ft (2.08 m) below land-surface datum, Apr. 5, 1984; lowest, 16.87 ft (5.14 m) below land-surface datum, Oct. 24, 25, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	14.78	10.50	9.11	---	8.60	8.75	8.55	7.38	---	10.12	12.52
2	---	14.77	10.39	9.14	---	8.69	8.71	8.65	7.68	---	10.23	12.57
3	---	14.75	10.25	9.23	---	8.85	8.59	8.70	7.82	---	10.34	12.64
4	---	14.74	10.25	9.30	---	8.92	8.31	8.38	8.09	---	10.45	12.59
5	---	14.76	10.14	9.40	---	8.92	7.74	7.75	8.29	---	10.56	12.63
6	---	14.77	10.03	9.53	---	9.05	7.07	7.80	8.45	9.26	10.62	12.71
7	---	14.80	9.52	9.69	---	9.18	7.39	7.90	8.46	8.75	10.74	12.78
8	---	14.80	9.44	9.81	---	9.22	7.50	7.90	8.67	7.80	10.87	12.84
9	---	14.81	9.37	9.94	---	9.39	7.52	7.58	8.93	7.98	10.99	12.88
10	---	14.81	9.37	---	---	9.42	7.57	7.75	9.13	8.18	11.07	12.93
11	---	14.70	9.40	---	10.85	9.59	7.76	7.80	9.40	8.28	11.16	12.99
12	---	14.59	9.34	---	10.80	9.75	7.91	8.00	9.57	8.27	11.28	13.08
13	---	14.58	8.72	---	10.58	9.75	8.09	8.00	9.65	8.58	11.30	13.13
14	---	14.56	7.48	---	10.27	9.89	8.15	7.91	9.43	8.80	11.39	13.20
15	---	14.55	7.65	---	9.51	9.91	8.14	8.07	---	9.00	11.49	13.26
16	---	14.34	7.83	---	8.56	9.84	7.81	8.23	---	9.19	11.60	13.33
17	---	14.11	7.97	---	8.22	9.78	7.39	8.37	---	9.42	11.59	13.37
18	---	14.08	8.02	---	8.16	9.74	7.46	8.49	---	9.42	11.68	13.40
19	---	13.97	8.26	---	8.17	9.67	7.36	8.51	---	8.76	11.76	13.45
20	15.22	13.87	8.55	---	7.95	9.64	7.35	8.63	---	8.92	11.81	13.52
21	15.17	13.63	8.61	10.74	8.16	9.46	7.60	8.51	---	9.08	11.86	13.65
22	15.16	13.16	---	10.78	8.26	8.82	7.66	8.38	---	9.25	11.93	13.68
23	15.14	13.02	---	10.81	8.26	8.49	7.66	8.40	---	9.40	11.93	13.73
24	15.04	12.84	---	10.81	8.16	8.48	7.78	8.23	---	9.60	11.97	13.78
25	14.93	12.53	---	10.74	7.95	8.39	7.82	8.32	---	9.83	12.02	13.82
26	14.86	12.13	---	---	8.14	8.39	7.93	8.64	---	9.97	12.11	13.90
27	14.82	11.84	---	---	8.16	8.39	8.08	8.71	---	9.97	12.17	13.95
28	14.81	11.54	---	---	8.05	8.35	8.21	8.70	---	9.66	12.24	13.99
29	14.80	11.13	8.82	---	8.43	8.49	8.26	8.19	---	9.73	12.30	14.01
30	14.80	10.70	8.90	---	---	8.69	8.32	7.00	---	10.04	12.37	14.07
31	14.78	---	8.95	---	---	8.75	---	7.17	---	9.96	12.45	---
MAX	15.22	14.81	10.50	10.81	10.85	9.91	8.75	8.71	9.65	10.04	12.45	14.07
MIN	14.77	10.51	7.41	8.95	7.70	8.06	6.83	6.92	7.17	7.72	9.96	12.45
MEAN	14.94	13.72	8.96	9.85	8.64	9.03	7.77	8.07	8.54	9.00	11.38	13.25

WTR YR 1984 MEAN 9.88 HIGH 6.83 LOW 15.22

400808075210401. Local number, MG 225.

LOCATION.--Lat 40°08'08", long 75°21'04", Hydrologic Unit 02040203, at Willow and Locust Streets, Norristown. Owner: Norristown State Hospital.
AQUIFER.--Sandstone of Stockton Formation of Late Triassic age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in (30 cm), depth 300 ft (91.4 m), casing information not available.
DATUM.--Altitude of land-surface datum is 165 ft (50 m). Measuring point: Top of plywood shelf, 2.35 ft (72 cm) above land-surface datum. Prior to Mar. 17, 1981, top of casing, 0.75 ft (23 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--September 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.00 ft (3.35 m) below land-surface datum, May. 31, 1984; lowest, 60.25 ft (18.36 m) below land-surface datum, Nov. 5, 6, 1963.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.49	35.57	29.43	20.59	23.67	17.78	15.37	18.77	11.31	21.61	21.71	25.64
2	35.53	35.56	29.36	20.61	23.71	17.80	15.56	19.24	11.68	21.78	22.15	25.73
3	35.61	35.55	29.24	20.69	23.71	17.88	15.73	19.41	11.99	21.95	22.47	25.79
4	35.67	35.60	29.18	20.75	23.60	17.93	15.81	19.30	12.32	22.11	22.76	25.92
5	35.69	35.63	28.17	20.90	23.01	17.92	15.69	18.59	12.60	22.30	22.89	26.08
6	34.68	35.63	27.52	21.05	22.69	17.68	13.04	18.60	12.86	22.36	23.05	26.27
7	35.44	35.64	26.95	21.31	22.67	17.62	13.38	18.75	13.12	22.38	23.20	26.40
8	35.67	35.70	26.74	21.50	22.75	17.63	13.80	18.73	13.35	22.28	23.41	26.51
9	35.86	35.73	26.63	21.67	22.73	17.69	14.12	18.70	13.58	22.39	23.58	26.59
10	35.99	35.74	26.47	21.70	22.75	17.73	14.40	18.80	13.79	22.45	23.71	26.69
11	36.02	35.56	26.50	21.94	22.70	17.83	14.73	18.85	14.03	21.23	23.82	26.83
12	35.99	35.45	26.36	22.14	22.70	17.97	15.04	18.94	14.22	20.84	23.92	27.05
13	35.96	35.41	25.44	22.22	22.66	17.92	15.36	19.01	14.35	20.81	23.50	27.13
14	36.04	35.33	22.74	22.34	22.54	17.34	15.59	19.11	14.55	20.84	23.42	27.23
15	36.12	35.32	21.53	22.51	22.38	16.06	15.78	19.23	14.79	20.85	23.61	27.40
16	36.17	34.96	21.57	22.63	21.00	15.61	15.77	19.39	14.95	20.85	23.76	27.54
17	36.22	34.28	21.68	22.85	20.23	15.72	15.80	19.54	15.05	20.93	23.88	27.67
18	36.28	34.14	21.70	22.89	20.18	15.82	16.01	19.64	15.11	20.99	23.99	27.71
19	36.29	34.05	21.86	23.11	20.18	15.94	16.21	19.66	17.03	21.11	24.10	27.76
20	36.30	34.03	22.04	23.29	20.19	16.11	16.36	19.85	18.42	21.17	24.25	27.84
21	36.34	33.90	22.04	23.49	20.30	16.18	16.57	20.05	19.06	21.22	24.36	28.07
22	36.34	33.57	22.03	23.62	20.38	16.37	16.67	20.19	19.51	21.21	24.49	28.20
23	36.34	33.37	21.04	23.71	19.52	16.61	16.65	20.25	19.84	21.25	24.65	28.30
24	36.17	33.24	20.58	23.72	18.86	16.71	16.80	18.38	20.08	21.27	24.80	28.41
25	35.76	33.03	20.66	23.74	18.32	16.79	17.02	17.33	20.24	20.22	24.92	28.48
26	35.48	32.00	20.75	23.72	18.24	16.97	17.18	16.92	20.53	19.68	25.01	28.68
27	35.40	31.27	20.88	23.63	18.21	17.11	17.37	16.71	20.78	19.40	25.10	28.75
28	35.42	30.97	20.88	23.42	18.00	17.11	17.53	16.54	21.06	18.71	25.19	28.77
29	35.50	30.49	20.47	23.40	17.78	16.62	17.54	16.34	21.27	18.47	25.29	28.70
30	35.53	29.75	20.52	23.42	---	15.59	17.60	14.38	21.47	19.27	25.35	28.71
31	35.53	---	20.50	23.56	---	15.22	---	11.28	---	20.87	25.50	---
MAX	36.34	35.74	29.43	23.74	23.71	17.97	17.60	20.25	21.47	22.45	25.50	28.77
MIN	33.51	29.45	20.38	20.44	17.69	15.12	12.88	11.00	11.09	18.26	20.93	25.52
MEAN	35.72	34.10	23.73	22.36	21.10	16.82	15.66	18.20	15.92	20.91	23.84	27.79

WTR YR 1984 MEAN 22.98 HIGH 11.00 LOW 36.34

401310075181702. Local number, MG 884.

LOCATION.--Lat 40°13'10", long 75°18'17", Hydrologic Unit 02040203, at Upper Gwyned Township, near West Point. Owner: Merck, Sharp, and Dohme, Inc.
AQUIFER.--Shale of Brunswick Formation of Late Triassic age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in (30 cm) to 10 in (25 cm), depth 600 ft (183 m), casing information not available.
DATUM.--Altitude of land-surface datum is 351 ft (107 m). Measuring point: Top of plywood shelf, 2.55 ft (78 cm) above land-surface datum. Prior to May 1, 1981, top of casing, 1.30 ft (40 cm) above land-surface datum.
REMARKS.--Well originally drilled to 300 ft. Water-level data for August 1956 to December 1965 published in U.S. Geological Survey Water-Supply Papers under local number MG-127. Well deepened to 600 ft in December 1965 and assigned local number MG-884.
PERIOD OF RECORD.--March 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 38.40 ft (11.70 m) below land-surface datum, June 30, 1972; lowest, 93.17 ft (28.40 m) below land-surface datum, Oct. 20, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69.74	71.02	69.52	65.03	64.32	62.04	59.75	57.74	49.78	45.39	52.34	59.65
2	69.76	70.96	69.45	64.79	64.34	62.01	59.62	57.78	49.30	45.42	52.66	59.70
3	69.83	70.87	69.30	64.59	64.19	61.99	59.63	57.69	49.11	45.32	52.92	59.74
4	69.90	70.89	69.13	64.34	64.11	62.01	59.44	57.52	48.88	45.21	53.29	60.08
5	70.04	70.88	68.97	64.30	63.99	61.76	58.94	57.71	48.73	45.00	53.63	60.28
6	70.23	70.89	68.74	64.21	64.05	61.54	59.07	57.65	48.50	45.01	53.84	60.48
7	70.33	70.88	68.57	64.34	64.10	61.65	59.13	57.48	48.24	44.90	54.09	60.69
8	70.38	70.92	68.51	64.27	64.15	61.67	59.14	57.23	48.00	44.93	54.49	60.74
9	70.48	70.93	68.43	64.32	64.06	61.63	59.10	57.05	47.74	44.88	54.89	60.72
10	70.55	70.90	68.28	64.10	64.11	61.62	58.79	56.99	47.58	44.70	55.08	60.85
11	70.59	70.95	68.19	64.29	63.93	61.48	58.70	56.83	47.41	44.42	55.33	61.01
12	70.67	71.13	67.88	64.36	63.95	61.59	58.74	56.38	47.40	44.38	55.51	61.32
13	70.76	71.10	67.52	64.33	63.85	61.42	58.72	56.29	47.21	44.48	55.64	61.39
14	71.03	71.09	67.38	64.23	63.62	61.24	58.66	55.92	46.95	44.51	55.79	61.58
15	71.03	71.06	67.34	64.24	63.53	61.22	58.43	55.76	46.97	44.47	56.03	61.99
16	71.06	70.90	67.34	64.08	63.53	61.00	58.23	55.53	46.98	44.21	56.21	62.10
17	71.02	71.03	67.29	64.18	63.40	60.99	58.26	55.34	46.79	45.33	56.45	62.23
18	71.11	71.07	67.23	64.15	63.35	60.84	58.29	55.00	46.39	46.52	56.63	62.28
19	71.20	70.94	67.04	64.23	63.22	60.60	58.40	54.47	46.26	47.66	56.80	62.37
20	71.27	70.86	67.02	64.34	62.90	60.49	58.34	54.09	46.33	48.41	57.15	62.54
21	71.29	70.79	66.99	64.42	62.84	60.32	58.29	53.89	46.28	48.85	57.33	62.96
22	71.25	70.69	66.61	64.39	62.86	60.35	58.25	53.71	46.17	48.92	57.39	63.06
23	71.18	70.65	66.47	64.33	62.72	60.53	57.85	53.26	46.09	48.87	57.70	63.07
24	71.17	70.53	66.11	64.14	62.49	60.49	57.68	52.95	46.00	48.90	58.07	63.18
25	71.18	70.39	66.00	64.20	62.45	60.26	57.98	52.67	45.76	49.62	58.32	63.31
26	71.10	70.33	65.92	64.28	62.55	60.12	58.03	52.21	45.69	50.07	58.40	63.73
27	71.16	70.16	65.68	64.17	62.44	60.13	58.07	52.06	45.62	50.56	58.52	63.84
28	71.13	69.97	65.50	64.39	61.88	59.94	58.07	51.84	45.59	51.12	58.72	63.95
29	71.22	69.68	65.43	64.20	62.02	59.79	57.99	51.23	45.56	51.41	58.94	64.07
30	71.19	69.62	65.44	64.20	---	59.96	57.73	50.73	45.48	51.68	59.09	64.17
31	71.03	---	65.29	64.23	---	59.88	---	50.25	---	51.97	59.48	---
MAX	71.29	71.13	69.52	65.03	64.34	62.04	59.75	57.78	49.78	51.97	59.48	64.17
MIN	69.65	69.49	64.91	63.90	61.48	59.13	57.40	49.80	45.35	44.06	51.99	59.49
MEAN	70.71	70.68	67.27	64.22	63.31	60.86	58.47	54.85	47.00	46.83	56.03	61.81

WTR YR 1984 MEAN 60.16 HIGH 44.06 LOW 71.29

403618075203801. Local number, NP 85.

LOCATION.--Lat 40°36'18", long 75°20'38", Hydrologic Unit 02040106, at Bethlehem.
Owner: City of Bethlehem.
AQUIFER.--Dolomite of Leithsville Formation of Early and Middle Cambrian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 12 in (30 cm), depth 344 ft (105 m), cased to 73 ft (22.3 m), open hole.
DATUM.--Altitude of land-surface datum is 230 ft (70 m). Measuring point: Top of casing, 1.00 ft (30 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.33 ft (10 cm) below land-surface datum, Sept. 24, 1975; lowest, 4.60 ft (1.40 m) below land-surface datum, June 29, 30, July 1, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.60	---	3.20			---	---	2.88	1.60	4.60	3.10	
2	3.20	---	3.37			---	---	2.94	1.82	---	3.15	
3	3.62	---	3.46			3.22	---	2.98	1.92	---	3.20	
4	3.64	---	3.47			3.20	---	1.55	2.08	---	3.24	
5	3.62	---	2.85			2.90	---	1.92	2.12	---	3.26	
6	3.62	---	2.96			3.29	---	2.08	2.14	---	3.00	
7	3.65	---	3.12			3.35	---	2.18	2.14	---	3.10	
8	3.64	---	3.28			3.35	---	2.24	2.18	---	2.90	
9	3.64	---	3.40			3.09	---	2.08	2.35	---	3.02	
10	---	---	3.51			2.30	---	2.22	2.45	---	2.80	
11	---	---	3.57			2.55	---	2.26	2.58	---	2.90	
12	---	---	3.57			2.50	---	2.32	2.68	---	3.02	
13	---	---	1.36			2.55	2.15	2.44	2.72	---	3.10	
14	---	---	1.79			2.65	2.15	2.49	2.82	---	3.20	
15	---	---	2.22			2.72	2.19	---	2.92	---	3.30	
16	---	---	2.59			2.75	2.10	---	3.00	---	3.34	
17	---	3.39	2.82			2.88	1.99	---	3.02	---	3.39	
18	---	3.61	2.98			3.00	2.09	---	2.78	---	3.40	
19	---	3.74	3.20			3.09	2.15	---	2.96	---	3.42	
20	---	3.84	---			3.10	2.18	---	3.12	2.52	3.48	
21	---	3.51	---			3.15	2.32	---	3.24	2.60	---	
22	---	3.46	---			---	2.40	---	3.34	2.70	---	
23	---	3.63	---			---	2.31	---	3.38	2.82	---	
24	---	3.69	---			---	2.35	---	3.40	2.92	---	
25	---	3.55	---			---	2.50	---	3.74	3.00	---	
26	---	2.89	---			---	2.60	---	4.40	3.10	---	
27	---	3.19	---			---	2.72	---	4.54	3.10	---	
28	---	3.22	---			---	2.76	---	4.58	2.52	---	
29	---	2.63	---			---	2.72	---	4.60	2.72	---	
30	---	3.01	---			---	2.71	---	4.60	2.90	---	
31	---	---	---			---	---	1.30	---	3.00	---	
MAX	---	---	---			---	---	---	4.60	---	---	

BEST COPY AVAILABLE

395342075102101. Local number, PH 12.

LOCATION.--Lat 39°53'42", long 75°10'21", Hydrologic Unit 02040202, at Barracks and East Fourth Streets, Philadelphia. Owner: U.S. Naval Base.

AQUIFER.--Middle Sand Unit of Potomac-Raritan-Magothy aquifer system of Late Cretaceous age.

WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 8 in (20 cm), depth 104 ft (31.7 m), cased to 94 ft (28.6 m), screened 94-104 ft (28.6-31.7 m).

DATUM.--Altitude of land-surface datum is 8.64 ft (2.63 m). Measuring point: Top of casing, 1.80 ft (55 cm) above land-surface datum.

REMARKS.--Mean daily fluctuation caused by tidal loading, 0.20 ft (6 cm).

PERIOD OF RECORD.--January 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.26 ft (4.35 m) below land-surface datum, May 7,8, 1984; lowest, 39.60 ft (12.07 m) below land-surface datum, July 20, 1955.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.77	---	17.39	---	---	---	15.82	15.27	14.78	15.21	15.33	15.33
2	16.66	---	17.49	---	---	---	15.87	15.13	14.89	15.27	15.38	15.36
3	16.70	---	17.29	---	16.50	---	15.96	14.86	14.98	15.27	15.34	15.11
4	16.66	---	17.22	---	16.10	---	15.88	14.95	15.10	15.25	15.28	15.15
5	16.65	---	17.01	---	---	---	15.40	15.00	15.20	15.17	15.30	15.25
6	16.92	---	17.01	---	---	---	15.25	14.90	15.21	15.25	15.30	15.39
7	17.19	---	---	---	---	---	15.65	14.65	15.22	15.19	15.21	15.50
8	17.19	---	---	---	---	---	15.87	14.76	15.23	15.27	15.23	15.52
9	17.22	---	---	---	---	---	15.91	15.00	15.21	15.34	15.38	15.35
10	17.30	17.18	---	---	---	---	15.63	15.04	15.33	15.22	15.40	15.11
11	17.25	16.62	---	---	---	---	15.35	15.02	15.37	15.08	15.36	15.03
12	17.04	---	---	---	---	---	15.39	14.97	15.55	15.11	15.35	15.20
13	16.69	---	---	---	---	---	15.37	14.68	15.45	15.25	15.37	15.21
14	16.86	---	---	---	---	---	15.39	---	15.41	15.35	15.29	15.07
15	17.03	---	---	---	---	---	15.22	---	15.70	15.30	15.27	15.22
16	17.19	---	---	---	---	---	15.01	---	15.73	15.13	15.30	15.43
17	17.06	17.15	---	---	---	---	15.00	---	15.65	15.18	15.25	15.52
18	16.93	17.39	---	---	---	---	15.19	---	15.35	15.19	15.27	15.45
19	17.09	17.39	---	---	---	---	15.39	---	15.19	15.39	15.23	15.19
20	17.15	17.35	---	---	---	15.77	15.39	---	15.31	15.44	15.37	15.15
21	17.17	17.10	---	---	---	15.74	15.45	---	15.39	15.39	15.51	15.47
22	17.11	17.18	---	---	---	15.65	15.58	---	15.39	15.42	15.41	15.66
23	16.92	17.28	---	---	---	16.08	15.39	---	15.39	15.42	15.18	15.61
24	16.56	17.19	---	---	---	16.13	14.80	15.15	15.35	15.25	15.32	15.49
25	16.61	16.76	---	16.10	---	16.04	14.79	15.16	15.15	15.46	15.45	15.43
26	16.50	17.29	---	16.22	---	15.74	15.13	15.06	15.20	15.48	15.54	15.70
27	16.77	17.39	---	16.22	---	15.87	15.13	15.39	15.15	15.29	15.51	15.78
28	---	17.36	---	16.16	---	15.72	15.18	15.33	15.20	15.51	15.43	15.67
29	---	16.93	---	16.14	---	15.21	15.24	15.09	15.23	15.54	15.42	15.43
30	---	17.17	---	16.13	---	15.14	15.24	15.00	15.20	15.47	15.37	15.39
31	---	---	---	16.19	---	15.84	---	14.93	---	15.41	15.13	---
MAX	17.30	17.39	17.49	16.22	---	16.13	15.96	15.27	15.73	15.54	15.54	15.78
MIN	16.31	16.43	16.18	15.75	---	15.11	14.60	14.26	14.55	14.79	14.97	14.79
MEAN	16.71	17.03	17.04	16.05	---	15.60	15.28	14.91	15.19	15.21	15.26	15.26

WTR YR 1984 MEAN 15.49 HIGH 14.26 LOW 17.49

410940074583401. Local number, PI 200.

LOCATION.--Lat 41°09'40", long 74°58'34", Hydrologic Unit 02040104, at Pocono Mountain Lake Estates.
Owner: Pocono Mountain Lake Estates.
AQUIFER.--Sandstone and siltstone of Towamensing Member of Catskill Formation of Late Devonian age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 8 in (20 cm), depth 799 ft (243 m), cased to 86 ft (26.2 m), open hole.
DATUM.--Altitude of land-surface datum is 1,180ft (360 m). Measuring point: Top of plywood shelf, 1.40 ft (43 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.88 ft (7.59 m) below land-surface datum, Apr. 18, 1983; lowest, 61.48 ft (18.74 m) below land-surface datum, July 30, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	43.69	30.64	36.94	37.75	47.76	32.77	33.75	24.30	38.40	51.64	40.80
2	---	43.51	31.00	37.18	37.75	45.84	32.74	33.95	25.24	36.30	46.71	41.93
3	---	43.07	31.70	37.26	37.74	41.50	31.96	34.23	26.70	34.54	43.79	42.42
4	---	42.62	32.47	37.02	37.48	38.59	30.11	34.21	27.73	34.18	42.17	42.44
5	---	42.98	32.70	36.08	36.38	37.28	29.21	29.40	28.66	35.44	41.99	41.93
6	---	43.49	32.63	35.31	35.46	36.60	29.22	27.56	29.74	36.13	41.24	41.44
7	---	43.64	31.88	35.07	35.18	35.82	27.74	27.97	30.66	36.24	39.72	41.13
8	---	43.66	30.32	35.89	34.92	35.45	26.77	28.22	31.45	36.25	38.42	41.46
9	---	43.56	30.64	36.25	34.84	35.10	27.31	28.13	32.65	37.50	37.77	42.38
10	---	43.47	31.53	36.26	34.81	35.28	27.57	27.52	34.54	38.61	37.55	43.41
11	---	44.09	32.59	36.07	35.03	35.70	28.35	27.92	36.16	39.94	37.58	43.44
12	---	43.63	33.14	36.25	35.06	36.00	29.11	28.82	36.60	41.11	37.17	43.13
13	---	42.00	33.07	36.38	35.01	36.01	30.06	29.96	36.92	42.14	36.65	42.86
14	---	41.23	29.66	36.51	34.19	35.76	30.99	30.66	36.95	43.71	36.34	42.20
15	---	40.81	27.69	36.69	32.79	35.67	31.91	31.01	37.11	45.44	36.30	41.98
16	---	40.42	27.88	36.75	29.56	35.64	32.08	31.35	38.98	46.35	36.50	42.44
17	---	37.89	28.79	36.86	28.02	35.45	30.84	31.83	39.99	46.59	36.56	42.88
18	---	36.66	29.89	36.93	27.78	35.03	29.10	32.23	39.99	46.63	38.71	42.92
19	---	36.58	30.97	36.94	30.77	34.67	28.70	32.75	39.37	46.16	39.53	42.71
20	50.95	36.93	31.96	37.01	35.98	33.65	28.76	33.40	39.02	45.68	39.54	42.43
21	50.84	37.00	32.80	37.50	39.60	32.18	29.17	33.75	38.94	46.40	39.14	43.06
22	50.84	35.46	33.31	37.88	42.03	30.83	29.72	33.79	38.73	47.48	38.85	43.45
23	50.84	34.31	33.66	38.21	43.95	29.72	30.17	33.78	39.92	48.25	39.17	44.01
24	50.84	34.35	33.85	38.23	44.59	29.55	30.46	33.22	40.87	48.81	39.19	44.66
25	50.84	34.43	34.60	38.12	45.05	29.96	30.82	31.67	40.83	50.08	39.94	44.76
26	50.84	32.85	35.64	37.96	45.81	30.42	31.30	32.04	39.64	51.52	41.33	44.74
27	50.84	32.94	36.10	37.92	50.34	30.74	31.82	33.78	38.74	53.72	41.62	44.66
28	42.72	32.96	37.82	37.87	50.38	31.05	32.45	35.05	38.37	56.70	41.82	44.14
29	42.81	32.78	38.07	38.05	49.05	31.47	33.17	35.05	38.57	59.96	41.11	43.86
30	43.59	31.05	37.60	38.08	---	32.09	33.60	29.87	38.64	61.48	40.50	44.09
31	43.80	---	36.82	38.00	---	32.60	---	25.44	---	58.99	40.22	---
MAX	50.95	44.09	38.07	38.23	50.38	47.76	33.60	35.05	40.87	61.48	51.64	44.76
MIN	42.59	30.44	27.40	34.84	27.50	29.35	26.38	24.17	24.05	33.90	36.14	40.16
MEAN	48.13	38.74	32.19	36.87	37.20	34.57	29.88	30.83	35.14	44.16	39.55	42.69

WTR YR 1984 MEAN 36.96 HIGH 24.05 LOW 61.48

404708076070701. Local number, SC 296.

LOCATION.--Lat 40°47'08", long 76°07'07", Hydrologic Unit 02040203, at Locust Lake State Park.
Owner: U.S. Geological Survey.
AQUIFER.--Mauch Chunk Formation of Early Pennsylvanian age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 242 ft (73.8 m), cased to 40 ft (12.2 m), open hole.
open hole.
DATUM.--Altitude of land-surface datum is 1,290 ft (393 m). Measuring point: Top of plywood shelf, 2.78 ft (85 cm) above land-surface datum. Prior to June 26, 1980, top of casing, 2.30 ft (70 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--July 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.09 ft (8.87 m) below land-surface datum, Apr. 6, 1984; lowest, 55.86 ft (17.03 m) below land-surface datum, Nov. 14, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54.75	53.76	39.90	41.91	46.65	39.21	41.24	38.93	30.87	35.18	43.78	47.15
2	54.81	53.85	39.82	42.03	46.67	39.36	40.76	39.02	31.73	32.62	43.96	47.18
3	54.85	53.97	39.79	42.50	46.70	39.92	39.56	39.11	32.77	31.84	44.29	47.22
4	54.89	54.04	39.76	42.90	46.40	40.41	38.19	38.71	33.66	32.67	44.52	47.23
5	54.92	54.05	39.62	43.32	45.27	40.75	36.23	35.00	34.64	33.35	44.65	47.43
6	54.77	54.12	39.44	43.57	45.57	41.17	30.93	34.49	35.87	34.17	44.72	47.54
7	54.83	54.16	38.57	43.94	45.74	41.42	30.33	34.38	37.02	34.15	44.91	47.59
8	54.96	54.29	38.48	44.39	45.87	41.49	31.36	34.56	37.99	34.85	45.28	47.68
9	55.08	54.29	38.73	44.69	46.06	41.95	32.44	34.71	38.90	35.62	45.63	47.64
10	55.26	54.36	38.93	44.96	46.06	42.31	33.25	35.13	39.66	36.16	45.60	47.50
11	55.27	53.65	39.15	45.32	45.81	42.72	34.12	35.45	40.41	36.61	45.18	47.81
12	55.25	51.02	39.25	45.49	44.74	43.18	35.08	35.94	41.03	37.43	45.25	47.82
13	54.83	51.28	35.62	45.63	44.05	43.41	36.17	36.34	41.35	38.10	45.27	48.06
14	54.19	51.72	31.15	45.85	43.86	43.83	37.30	36.73	41.72	38.90	45.49	48.10
15	53.61	51.83	30.62	46.03	39.10	44.02	37.34	37.34	42.21	39.59	45.66	48.33
16	54.07	49.59	31.77	46.14	36.42	44.03	37.49	37.85	42.62	40.15	45.67	48.56
17	54.47	47.34	33.07	46.38	35.11	43.72	37.37	38.40	43.02	41.02	45.97	48.58
18	54.76	48.06	34.46	46.68	34.79	43.55	37.36	39.04	42.90	41.02	45.98	48.65
19	54.67	48.74	35.10	46.69	35.16	43.08	37.47	39.33	42.71	41.48	46.16	48.67
20	53.27	48.80	36.04	45.99	35.63	42.54	37.37	39.78	43.21	41.88	46.29	48.47
21	53.77	46.75	37.10	46.29	36.21	42.55	37.43	39.46	43.70	42.27	46.35	48.57
22	54.10	46.14	37.48	46.50	36.94	40.73	37.43	39.37	43.82	42.77	46.57	49.07
23	54.22	46.19	38.05	46.49	37.51	40.29	37.37	39.42	44.12	43.18	46.61	49.11
24	53.08	46.25	38.59	46.68	37.53	40.23	37.14	39.05	44.29	43.55	46.35	49.01
25	51.67	46.00	39.74	46.64	37.38	40.03	36.24	38.96	43.41	43.75	46.55	49.01
26	52.36	43.13	40.29	46.22	37.80	39.85	38.35	38.95	43.80	44.21	46.76	49.69
27	52.88	43.00	41.01	46.15	38.15	40.07	38.74	39.11	44.02	44.23	46.78	49.54
28	53.22	42.96	41.29	46.04	38.34	40.26	39.23	39.12	44.39	42.88	46.74	49.52
29	53.31	42.34	40.66	46.26	38.95	40.07	39.10	38.95	44.51	43.15	46.86	49.46
30	53.44	40.29	41.12	46.45	---	40.61	38.72	31.94	44.53	43.45	46.91	49.46
31	53.54	---	41.69	46.48	---	41.05	---	30.40	---	43.56	47.00	---
MAX	55.27	54.36	41.69	46.69	46.70	44.03	41.24	39.78	44.53	44.23	47.00	49.69
MIN	50.89	39.89	30.13	41.71	34.56	38.89	29.09	29.95	30.46	31.49	43.47	47.02
MEAN	53.92	49.15	37.59	45.16	40.88	41.37	36.38	36.85	39.98	38.84	45.60	48.22

WTR YR 1984 MEAN 42.83 HIGH 29.09 LOW 55.27

414333075153201. Local number, WN 64.

LOCATION.--Lat 41°43'33", long 75°15'32", Hydrologic Unit 02040103, at State Game Land Number 159.
Owner: U.S. Geological Survey.
AQUIFER.--Sand and gravel of Glacial Outwash of Quaternary age.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 in (15 cm), depth 52 ft (15.8 m), cased to 52 ft (15.8 m), open end.
DATUM.--Altitude of land-surface datum is 1,350 ft (412 m). Measuring point: Top of plywood shelf, 2.63 ft (80 cm) above land-surface datum. Prior to Apr. 30, 1980, top of plywood cover, 2.57 ft (78 cm) above land-surface datum.
REMARKS.--None.
PERIOD OF RECORD.--October 1967 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.88 ft (2.40) below land-surface datum, Nov. 17, 1972; lowest, 32.77 ft (9.99 m) below land-surface datum, Oct. 24, 25, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31.63	---	---	29.21	---	27.75	27.83	26.63	23.51	28.29	28.76	29.58
2	31.63	---	30.26	29.16	---	27.82	27.83	26.76	23.59	27.68	28.80	29.64
3	31.64	---	30.17	29.15	---	27.95	27.80	26.79	23.76	27.05	28.82	29.68
4	31.66	---	30.09	29.11	---	27.99	27.67	26.70	24.01	26.81	28.81	29.65
5	31.68	---	30.09	29.14	---	27.99	27.24	26.39	24.25	26.73	28.81	29.68
6	31.69	---	30.00	29.14	---	28.05	26.47	26.29	24.54	26.66	28.81	29.73
7	31.71	---	29.77	29.23	---	28.17	26.73	26.07	24.93	26.51	28.81	29.77
8	31.73	---	29.71	29.28	---	28.19	26.80	25.93	25.30	26.44	28.84	29.80
9	31.74	---	29.49	29.34	---	28.29	26.80	25.70	25.69	26.33	28.88	29.84
10	31.76	---	29.36	29.29	---	28.31	26.73	25.50	26.07	26.27	28.92	29.86
11	31.76	---	29.36	29.39	---	28.45	26.74	25.40	26.44	26.33	28.94	29.92
12	31.76	---	29.20	29.44	---	28.55	26.79	25.32	26.74	26.52	28.96	29.97
13	31.76	---	28.94	29.44	---	28.56	26.91	25.33	26.98	26.70	28.97	30.00
14	31.73	---	28.34	29.46	---	28.64	26.95	25.23	27.24	26.88	28.97	30.03
15	31.70	---	28.52	29.46	---	28.65	26.94	25.21	27.51	27.02	28.97	30.09
16	31.70	---	28.71	29.47	---	28.72	26.77	25.22	27.69	27.19	29.02	30.15
17	31.70	31.68	28.71	29.54	28.03	28.73	26.27	25.29	27.82	27.38	29.04	30.22
18	31.71	31.68	28.71	29.55	27.84	28.71	26.18	25.31	27.91	27.54	29.09	30.24
19	31.71	31.68	28.80	29.59	27.84	28.68	26.23	25.35	28.05	27.73	29.13	30.27
20	31.70	---	28.89	29.64	27.56	28.63	26.18	25.51	28.15	27.88	29.15	30.32
21	31.69	---	28.91	29.68	27.72	28.50	25.93	25.60	28.23	27.99	29.17	30.38
22	---	---	28.90	---	27.83	28.20	25.94	25.61	28.33	28.11	29.18	30.43
23	---	---	29.01	---	27.79	28.16	25.81	25.56	28.43	28.18	29.18	30.47
24	---	---	29.01	---	27.69	28.14	25.78	25.51	28.48	28.29	29.21	30.51
25	---	---	29.14	---	27.78	27.93	26.03	25.32	28.53	28.42	29.24	30.54
26	---	---	29.21	---	27.81	27.83	26.18	25.20	28.58	28.52	29.28	30.61
27	---	---	29.30	---	27.80	27.83	26.29	25.29	28.64	28.53	29.31	30.66
28	---	---	29.30	---	27.64	27.75	26.43	25.29	28.73	28.59	29.35	30.69
29	---	---	29.30	---	27.67	27.65	26.48	25.06	28.77	28.63	29.39	30.74
30	---	---	29.34	---	---	27.76	26.51	24.10	28.70	28.66	29.43	30.78
31	---	---	29.28	---	---	27.81	---	23.45	---	28.69	29.50	---
MAX	31.76	31.68	30.26	29.68	28.03	28.73	27.83	26.79	28.77	28.69	29.50	30.78
MIN	31.62	---	28.27	29.08	27.39	27.43	25.68	23.33	23.45	26.26	28.70	29.50
MEAN	31.70	---	29.22	29.32	27.72	28.15	26.56	25.46	26.75	27.43	29.04	30.12

WTR YR 1984 MEAN 28.12 HIGH 23.33 LOW 31.76

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54×10^{1}	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^{0}	kilometers (km)
	Area	
acres	4.047×10^{3}	square meters (m^2)
	4.047×10^{-1}	square hectometers (hm^2)
	4.047×10^{-3}	square kilometers (km^2)
square miles (mi^2)	2.590×10^{0}	square kilometers (km^2)
	Volume	
gallons (gal)	3.785×10^{0}	liters (L)
	3.785×10^{0}	cubic decimeters (dm^3)
	3.785×10^{-3}	cubic meters (m^3)
million gallons	3.785×10^{3}	cubic meters (m^3)
	3.785×10^{-3}	cubic hectometers (hm^3)
cubic feet (ft^3)	2.832×10^{1}	cubic decimeters (dm^3)
	2.832×10^{-2}	cubic meters (m^3)
cfs-days	2.447×10^{3}	cubic meters (m^3)
	2.447×10^{-3}	cubic hectometers (hm^3)
acre-feet (acre-ft)	1.233×10^{3}	cubic meters (m^3)
	1.233×10^{-3}	cubic hectometers (hm^3)
	1.233×10^{-6}	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	2.832×10^{1}	liters per second (L/s)
	2.832×10^{1}	cubic decimeters per second (dm^3/s)
	2.832×10^{-2}	cubic meters per second (m^3/s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm^3/s)
	6.309×10^{-5}	cubic meters per second (m^3/s)
million gallons per day	4.381×10^{1}	cubic decimeters per second (dm^3/s)
	4.381×10^{-2}	cubic meters per second (m^3/s)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons